School effects on adolescent pupils' health behaviours and school process associated with these effects

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Thesis submitted for the degree of
Doctor of Philosophy
at the University of Glasgow

MRC Social and Public Health Sciences Unit
February 2006

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Abstract

Eight schools, located in Scotland were involved in this study. Four different types of data were collected in the following order: first, 183 semi-structured interviews with a range of staff and pupils across the schools, the interviews covering questions relating to health education, promotion and ethos including quality of relationships; second, a school audit of health education and health promotion in all schools; third, Researcher observations for all schools; and, fourth, questionnaire data collected from 446 pupils across the schools.

The Health Promoting School (HPS) concept is based on the belief that schools have the potential to influence their students' health and health behaviour through the school's social organisation, culture and physical environment, as well as through the formal curriculum. To date, there is little empirical evidence to test the effectiveness of the HPS, at least evidence that adjusts for known predictors of the behaviours, a standard set by the more advanced area of 'school effects' research on educational outcomes. This thesis will add to that evidence base.

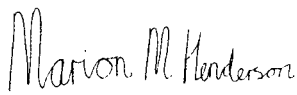
The aims of this study have three main components: first, to quantify 'school effects' on a range of pupils' health behaviours comprising current smoking, weekly alcohol drinking, ever tried drugs and physical activity: second, to assess the extent to which the health behaviour profile of schools are related to health promotion activity as evidenced by an audit: third, to select and analyse qualitative data from three case study schools. The purpose of the second and third aims is to investigate the extent to which school processes are associated with 'school effects' on pupils' health behaviours, triangulating data from different methodologies.

The questionnaire data indicated that a strong school effect existed for smoking and drinking to a lesser degree, but not for drugs or physical activity. This addressed the first aim of this study and, in addition, provided the means by which three case study schools were selected. These were the two schools with the lowest (added value) and highest odds (lost value) for smoking after adjustment for known predictors of the health behaviours. Plus, a third school which was significantly different from the school with lowest smoking and located in the same town, as this eased interpretation of the results. Relating to the second aim, the pattern of the 'school effects' on smoking were triangulated with data from three different data sources. First, in the audit, higher levels of action on health education and health promotion were associated with lower (adjusted) rates of smoking. Second, the three case study schools were used to explore the Researcher's observations; the school with added value for smoking was rated more highly than the two with lost value. Regarding the third aim, based on qualitative data from a range of staff and pupils, the analysis showed that the school with added value had progressed furthest towards functioning as a whole school, performing best across all the areas explored. These findings theoretically triangulated with the schools low smoking rates according to the HPS concept.

These results confirm the importance of school processes on students' health behaviour, particularly smoking, and support a school-wide or "Health Promoting School" approach to improving health behaviours.

Declaration

I declare that, except where acknowledged, all the work has been undertaken by myself.



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Acknowledgments

One of the most pleasant parts of writing this thesis is the opportunity to thank the many people and organisations who contributed to it. Special thanks go to the following.

My supervisors, Professors Patrick West and Gillian Raab, for their consistent encouragement, support, patience and sharing of their expertise.

All those who participated, especially staff and pupils in participating schools; this project was only possible due to their generous help and cooperation.

The Medical Research Council Social and Public Health Sciences Unit for providing a very supportive environment in which to conduct research both academically and socially. There are many individuals from the Unit to thank, in particular, Dr Katie Buston, Mary-Kate Hannah, Prof. Graham Hart, Kate Hunt, Laura McKay, Edna McIntyre, Prof. Sally Macintyre, Prof. Nanette Mutrie, Dr Guy Muhlemann, Jean Money, Crawford Neilson, Carol Nicol, Louise O'Neil, Dr Alison Parkes, Mary Robbins, Dr Patricia Walls and Dr Daniel Wight.

My husband, Dr Tony Axon, for being understanding, proof-reading and technical support with Word. Our survival through my part-time PhD bodes well for our future robustness!

My parents, Jack & Cathie Henderson, for their love, unwavering belief in me and all manner of practical support.

My brother, Iain Henderson, and his partner Maureen, for proof-reading, morale boosting and general interest in progress.

My friends for keeping me positive and cheering me up, particular thanks to Dorothy Brown, Hazel Fisken, Dr Anne Hepburn, Mhairi Hogg, Laurence Giraud Johnstone and Maria Leung and, the sadly missed, Fred Low.

Many thanks are also due to the collaborating and funding agencies in the project, Argyll and Clyde Health Board (A&CHB), University of Strathclyde, Strathclyde Regional Council Department of Education (SRCDoE) and Argyll and Bute, Dumbarton and Renfrew Divisions, within these organisations particular thanks are due to the members of the Advisory Group, namely: Michael Burke, Education Officer, Renfrew Division of SRCDoE; Anne Clarke, Health Promotion Unit Manager, A&CHB; Niall Coggans, Senior Lecturer, University of Strathclyde; Professor John B Davies, Director of The Centre for Applied Social Psychology, University of Strathclyde; Ronald Gould, Education Officer, Renfrew Division of SRCDoE; Dr Graeme Hutcheson, Lecturer, Manchester University; Linda Kirkwood, HEDO, A&CHB, seconded from SRCDoE (Argyll and Bute Division); Linda Marsh, Assistant Director of Education (Head of Research), SRCDoE; Leslie Moodie, Senior Health Promotion Officer, Health Promotion Unit, A&CHB; Grace Moore, Senior Health Promotion Officer (Education setting) A&CHB. Involved since Oct. 1992; Patricia Scott, HEDO, A&CHB, seconded from SRCDoE (Renfrew Division).

Abbreviations

Education establishments use many abbreviations when they refer to teachers' designations, subjects, subject areas, teaching packages, working groups, agencies and organisations. Below is an alphabetical list of those used in this thesis. In addition, each time one is first used in a Chapter it is written out in full with the abbreviation in brackets.

AHT	Assistant Head Teacher,
DHT	Depute Head Teacher,
HE	Health Education,
HEDO	Health Education Development Officer,
HT	Head Teacher,
INSET	In-service Training,
PAT	Planned Activity Time,
PE	Physical Education,
PSD	Personal and Social Development,
PSE	Personal and Social Education,
PT	Principal Teacher,
PTA	Parents' and Teachers' Association,
RE	Religious Education,
S1 (2,3,4,5 or 6)	Secondary (One, two, three, four, five or six), these correspond to ages, S1 = 11/12 , S2 = 12/13, S3 = 13/14, S4 = 14/15, S5 = 15/16 and S6 = 16/17
SED	Scottish Education Department,
SFA	`Skills for Adolescence' (a Social Education teaching package) and
SMT	Senior Management Team.

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1 Introduction

The main aim of this thesis is to extend existing knowledge on the following question:-

> Are there 'school effects' on the health behaviours of pupils, and if so, what school processes are associated with these 'school effects'?

To address this question a review will be undertaken of what is known about 'school effects' on pupils' health behaviours and the processes by which schools may affect health behaviour. The review addresses the influence of broad school factors, but not the effect of specific health education materials and packages on health behaviours.

Research that explores whether 'pupil outcomes for a school vary, either positively or negatively, from that which might be expected, given the known predictors of these outcomes' has been termed 'school effects' research (Fitz-Gibbon, 1996). The focus on 'school effects' in relation to health behaviours is important for two main reasons. First, it has been recognised for some time that social context and 'lifestyle' factors account for much of the illness and mortality in developed countries:

> *'...the heaviest burden of illness in technologically advanced countries today is related to individual behaviour, especially long-term patterns often referred to as 'lifestyle'. Epidemiological studies show that in such countries about half the mortality from the 10 leading causes of death can be traced to health-damaging behaviours such as smoking.'*
> (World Health Organisation, 1986)

This focus on lifestyle continues to underpin policies directed towards the reduction of substance use. Thus, in Scotland:

> *'Scotland's health is improving. But there are still have many challenges to overcome to tackle Scotland's poor health record. The [Scottish] Executive has a wide range of initiatives in place to encourage more people to live healthier lives and to reduce smoking, alcohol and drug misuse.'*
>
> (Scottish Executive, 2005)

Health-damaging behaviours account for a large component of economies' sickness, absence and lost productivity costs (Henderson, Hutcheson, & Davies, 1996). Therefore, if schools can make a positive impact on pupils' health behaviour, at a stage when lifestyles are still formative, this would make a contribution to the future well-being of the individual, the economy and society as a whole.

The second reason for the importance of extending 'school effects' research to health behaviours arises from a recognition that compulsory schooling involves at least 15,000 hours of young people's time, a large proportion of their lives, and this places education in a unique position to influence many dimensions of young people's lives:

> *'...This unparalleled call on the time and efforts of the nation's youth places education in a position of great responsibility. Educators have more opportunities than other professionals to have enormous influence*

on the next generation. Research and development in education should be a major national investment...'

(Fitz-Gibbon, 1996).

The concern for and importance of young people's health behaviour has been recognised for some time. Health Education (HE – the teaching of health related topics within the formal school curriculum) has become increasingly more diverse, and Health Promotion (HP – encouraging health enhancing behaviour through the school's social organisation, culture and physical environment, as well as through the formal curriculum) has developed in the last few decades. The next section overviews the history of this area.

1.1 Historical perspective

The historical context of this study involves two interconnected strands: first, a change in focus related to health from contagious diseases to lifestyles; second, a parallel shift from health education to health promotion. Since the 1990s the Health Promoting School (HPS) concept has been a key influence in guiding schools towards becoming health-promoting institutions, but there is little empirical evidence on the impact of HPS on pupils' health behaviours. While there is much methodological debate on the pros and cons of different evaluation strategies, the methodology developed by 'school effects' research, which has focused on academic outcomes, has much to offer to evaluations of health outcomes. These have informed the analysis developed in this thesis.

The HPS has a long history which is located in the public health movement, but it was not until the turn of the twentieth century that education and health services co-operated and achieved some integration of their aims (McCafferty, 1979). However, this co-operation did not appear to change practice greatly. For example, the Interdepartmental Committee of Physical Deterioration (Interdepartmental Committee of Physical Deterioration, 1904) recommended a need to include in teacher training information about, dental hygiene and physical education (PE), the effects of alcohol on physical health and, for older girls, cookery, hygiene and domestic economy. Despite this recommendation, the Board of Education acted only on the topics of hygiene and PE (which many schools had been covering anyway since the Industrial Revolution). This reflected the narrow view of health prevalent in the early Twentieth century.

The term 'Health Education' was first used in 1927 when the Central Council of Health Education was established. It is thought that the term was coined in order to make such education more acceptable to schools, in recognition of the low status attached to the subject (Sutherland, 1979). In 1939 a handbook for teachers called 'Suggestions on Health Education' was published (Board of the Education, 1939). Although the general philosophy was still narrow, it did include a section on mental health and recognised the contribution that the whole school environment could make to health education. A greater challenge to the narrow view of health took place in 1946 when the World Health Organisation (WHO) stated the following:

> *'Health is a state of complete physical, mental and social well-being, and not merely the absence of disease.'*
>
> (WHO, 1946)

Despite WHO's attempt to widen the definition of health, very little changed in schools' health education practice until the 1960s and 1970s. In the 1960s the emphasis was on the child centred approach, and educational methods sought to develop autonomy and responsibility through discovery learning. Health Education emerged as a complex theme of well-being and the state of being human, similar to the aims of WHO back in 1946 (Naidoo & Wills, 1994).

The Schools' Council Health Education Project 5 - 13 (Schools' Council / Health Education Council Project, 1977) and Health Education Project 13 - 18 (Schools' Council / Health Education Council, 1982) saw health education as concerned with increasing knowledge, changing attitudes in order to make 'rational' informed decisions and the development of self-esteem. Health themes ranged from the physiological to environmental and community health, a multidimensional view which reflected the holistic concept of the WHO. Subsequent projects have sought to develop social and life skills such as being assertive, making relationships, managing conflict, working in groups and influencing people. Health education projects were advised to incorporate experiential learning (though the extent to which they were incorporated is not known).

More recently the limitations of health education have become apparent, notably in respect of the failure to take account of structural and environmental influences on health. Health promotion, which has developed from health education, is intended to encompass both health education (individual) and structural (contextual) elements (Bunton & MacDonald, 1992). Schools' curricula on health is an example of health education, but it is only when schools move beyond that to look at how their whole

school policies and practices affect the health and well-being of pupils and staff that they become health promoting. In order to guide schools in how to become health promoting, the HPS concept was developed, and this has been influential in how many schools promote health. The HPS guidelines developed to achieve this were based on the philosophy that:

> *'The Health Promoting School aims at achieving healthy lifestyles for the total school population by developing supportive environments conducive to the promotion of health. It offers opportunities for, and requires commitments to, the provision of a safe and health-enhancing environment.'*
> (World Health Organisation, Council of Europe, & Commission of European Communities, 1993)

Specifically, to become 'Health Promoting', schools are encouraged to develop:

- promotion of the self esteem of all pupils by demonstrating that everyone can make a contribution to the life of the school;
- development of good relations between staff and pupils and among pupils in the daily life of the school;
- provision of stimulating challenges for all pupils through a wide range of activities;
- the use of every opportunity to improve the physical environment of the school;

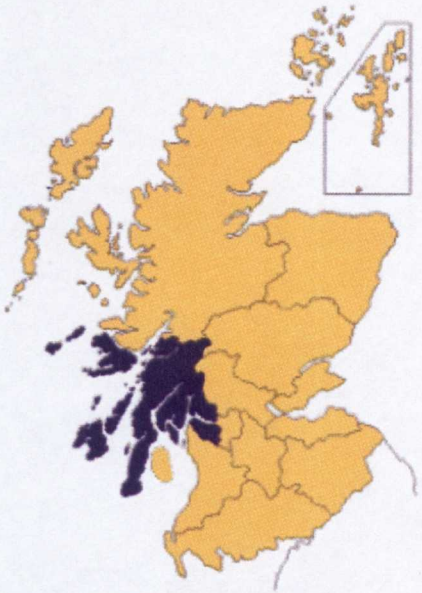
- development of good links between the school, home and the community;
- development of good links between associated primary and secondary schools to plan a coherent health education curriculum;
- consideration of the role of staff exemplars in health-related issues;
- active promotion of the health and well-being of school staff;
- the complementary role of school meals (if provided) to the health education curriculum;
- the realisation of the potential of specialist services in the community for advice and support in health education;
- development of the education potential of the school health services beyond routine screening towards active support for the curriculum.

(World Health Organisation, Council of Europe, & Commission of European Communities, 1993)

1.2 Study context and current context

The data for this thesis were collected as part of a wider initiative that the author was involved in, as Research Fellow, between October 1991 and September 1993, and is called the Argyll & Clyde study throughout this thesis. The wider initiative was a research and development project arising out of (and funded by) a partnership between Argyll and Clyde Health Board, Strathclyde Regional Council Department of Education and the University of Strathclyde (Henderson, Coggans, & Davies, 1993). Figure 1-1 shows the geographical location of the Argyll & Clyde study.

Figure 1-1 Argyll & Clyde Health Board area within Scotland



Area of study is marked in darker colour (Scotmaps, 2005).

The aim of the wider initiative was to evaluate 'Health and AIDS' education in both 'traditional' and 'health promoting school' contexts (Scottish Health Education Group (SHEG) & Scottish Consultative Council on the Curriculum (SCCC), 1990). More detail is provided in the Methodology chapter.

At the time of data collection, the HPS concept was at a much earlier stage without policy endorsement from Local Education Authorities, Scottish Office Education Department (now Scottish Executive Education Department (SEED)) backing or financial support. Since then, the context has changed, and in 2001 the Scottish Executive funded a Health Promoting Schools Unit to work with and encourage every school in Scotland to become a Health Promoting School. Similar developments have taken place in England in the form of the National Healthy School Standard. In recognition of the move towards all schools becoming HPS in Scotland, Her Majesty's Inspectors of Schools (HMI) have written a number of documents relating to Health

Promotion, for example, 'Health Promotion – Issues for Councils and Schools' ((HMI), 1999). These contain self-evaluation documents for schools to use. However, at national level success is seen in terms of the number of schools that have achieved or are aiming to achieve the HPS status, rather than evaluating the effectiveness of these schools in actually changing pupil and staff health behaviours in the desired direction.

While the intended outcomes of the HPS concept are to promote health and healthy lifestyles for young people, there is by no means unanimous agreement that the HPS will be successful. Underlying the health-promoting concept is the belief that people are rational, that once in possession of the facts and in an environment where acting rationally is supported they will want to make that healthy choice. This assumes that healthy behaviour is rational, as it is within a medico-scientific model. The problem with this assumption is that many people may be more motivated to choose another course of action, not because they are irrational, but because they are more motivated by another set of values. Health promotion assumes that people are primarily motivated by a value for health, whereas pleasure, risk, or conforming to perceived norms may be a stronger motivation. In relation to sexual behaviour it has been demonstrated how other sets of values influence decisions about safer-sex in relation to HIV (Holland, Ramazanoglu, Sharpe, & Thomson, 1998; Warwick & Aggleton, 1990). Thus, if health promotion does not acknowledge other value paradigms it may not address the issues salient to pupils, and therefore may not be successful. Given that the success of HPS is questionable, evaluations in order to demonstrate its effectiveness empirically would be extremely valuable.

However, the Health Promoting School literature currently places its emphasis upon provision and process (Parsons, Stears, Thomas, Thomas, & Holland, 1997), and even the very recent evidence that does exist to link outcomes and school processes has limitations of breadth. This will be discussed in more depth in Chapter 2. More fully understanding the associations between school processes and health behaviours is crucial to developing an evidence-based approach to "Health Promoting Schools"; a concept that currently guides school health promotion practice internationally (Gordon & Turner, 2001; Parsons, Stears, Thomas et al., 1997).

At present schools are progressing towards the Health Promoting School concept largely as an act of faith. There is a need to address this gap in current research. The aims of this thesis address these gaps in evaluation and understanding.

1.3 Aims and objectives

The aims of this study have three main components: first, to quantify 'school effects' on a range of pupils' health behaviours comprising current smoking, weekly alcohol drinking, ever tried drugs and physical activity (justification for this choice of health behaviours is made in Chapter 2): second, to assess the extent to which the health behaviour profiles of schools are related to health promotion activity as evidenced by an audit: third, to select and analyse qualitative data from three case study schools (two varying negatively and one positively from expected given known predictors of outcomes as this adjusts for pupils composition). The purpose of the second and third aims is to investigate the extent to which school processes are associated with 'school effects' on pupils' health behaviours, triangulating data from different methodologies.

The objectives of the research are listed below.

1. To describe pupils' variation in self-reported substance use and physical activity between the study schools.
2. To describe, after adjustment for known predictors of young people's health behaviour, 'school effects', if any, on substance use and physical activity.
3. To describe independent ratings of the extent to which schools in the study are 'health promoting'. Independent ratings involved both an audit completed by teachers and one-to-one semi-structured interviews conducted with a range of teachers and pupils in each school.
4. To assess, using triangulation, whether 'school effects', are associated with health education, health promotion provision and processes within schools.

Chapter 2 discusses current evidence related to 'school effects' and young people's health behaviours. Chapter 3 provides both a rationale for and detail of the methodology used. Chapter 4 describes the quantitative results from the pupils' questionnaire; this includes the results of 'school effects' analysis. Chapter 5 triangulates the 'school effect' for smoking with the results of an audit of each school's health education and health promotion. Chapters 6 to 9 describe the results of qualitative interviews conducted in three case study schools. Finally, Chapter 10 draws all the findings together, discusses the findings in the context of other literature and makes recommendations for policy and future research.

2 School effects and health behaviours

This chapter commences by exploring what can be learned from the literature of 'school effects' on education, as that field of research is more established than 'school effects' on health behaviours. The first section assesses potential overlaps in concepts and evidence from 'school effects' on education to the current study. The next section considers recent evidence for 'school effects' on health behaviours and discusses in what ways the Argyll & Clyde study adds value to the field, followed by a rationale for the selection of health behaviours. The chapter concludes with a summary of the factors known to predict these health behaviours, with a view to identifying which are to be incorporated in this study.

2.1 School effects on education

2.1.1 History and methodological developments

Until 20 years ago, research such as the Coleman Report (Coleman, Campbell, Hobson, McPartland, Mood, Weinfeld et al., 1966) was widely interpreted as concluding that schools had little or no differential effect on pupil achievement when the effects of family background were taken into account. Subsequent work, (Reynolds, Jones, & St Leger, 1976; Rutter, Maughan, Mortimore, & Ouston, 1979), challenged such conclusions. A lasting legacy of Reynolds et al. and Rutter et al.'s research was that it re-opened the door for researchers to explore the impact of schools on pupil outcomes. Indeed, the Argyll & Clyde study owes much to their work. The detailed findings (associations between school processes and academic outcomes) of these studies will not be focused on here as they have been overtaken methodologically by more recent

research on 'school effects' on educational outcomes. The methodological weaknesses and criticism of this research and subsequent methodological developments are outlined below.

Rutter et al. and Reynold et al.'s work is now viewed as part of what is called 'First Generation School Effectiveness Studies'. Methodologically, these studies were criticised for their heavy reliance on correlational methods. The confusion between correlation and causation led to many overstated claims about school effectiveness; a cause-effect relationship between a process and an outcome cannot be deduced simply from the fact that they are associated. In addition, Rutter et al.'s work is open to the criticism that it does not take account of any parental influences, including, 'parental expectations for and interest in their children' (Radical Statistics Education Group, 1982). The problem was summarised neatly by Tizard et al., who concluded that 'Some working-class parents with children of average ability are more knowledgeable about and interested in education than others. If these families select a secondary school with a 'good' reputation and thereafter give their children more educational support, the children's school career will depend to a greater extent than the authors allow for parental as well as school characteristics' (Tizard, Burgess, Francis, Goldstein, Young, Hewison et al., 1980).

'Second Generation Studies' (second half of the 1980s) took on board the criticisms of the first generation studies and employed new statistical techniques, such as hierarchical /multi level modelling (HLM or MLM). HLM and MLM use several levels, such as the pupil level, the classroom level (not always included) and the school level. Higher levels should be seen as providing conditions for what takes place at lower levels. Quantitative

survey results can then be triangulated with qualitative / process findings from school and classroom observations, and school process data can be incorporated into the model as explanation for 'school effects' variance (Fitz-Gibbon, 1996; Reynolds, Bollen, Creemers, Hopkins, Stoll, & Lagerweij, 1996; Reynolds, Sammons, Stoll, Barber, & Hillman, 1996).

Fixed effects were used in the Argyll & Clyde study as 'school effects' were linked to processes within the schools used in this sample: thus, this is a first generation study. When the data for this thesis were collected, it was one of the first projects aiming to explore 'school effects' on health behaviours and, as such, was and remains justified. Exploratory findings can be subsequently tested by second-generation studies using multi-level modelling. The strength of the Argyll & Clyde study resides in the richness of qualitative data, school audit and the use of triangulation. When findings triangulate with each other despite different methodological sources (quantitative, qualitative and audit) this adds robustness to the findings (more detail on these topics is given in the Methodology). Furthermore, being cognisant of the criticisms of Rutter et al. and Reynolds et al.'s research means the Argyll & Clyde study findings are not overstated: this study explores associations and claims about causation must be qualified. Nevertheless, the study is strengthened by adjusting for family structure and parental health behaviours, thereby addressing the criticism by the Radical Statistics Group and Tizard et al. that family variables were ignored by Rutter et al.'s work.

2.1.2 Findings of studies on school effects on education

At the time of the Argyll & Clyde study, a large 'school effects' study on educational outcomes that used data from Scotland was published. The analysis used multi-level modelling and adjusted for pupil intake. The analysis sample was 18,851 pupils and 456 schools, which covered 72% of all pupils of the target age. The outcome was Scottish Certificate of Education fourth year attainment level ('O' Grade level). The adjustment for pupil intake involved a measure of socio-economic status, the level of educational attainment of the pupil's mother and the number of children in the family. The socio-economic status measure was based on the Registrar General's classification. The study reported that between 15 and 20 percent, depending on outcome considered, of the unadjusted (raw) variation in pupil attainment lay between schools. After adjustment for pupil intake this dropped to between 8 and 10 percent of the variance. After adjustment the difference between the most effective quarter and least effective quarter of schools was in the order of two Scottish 'O' level grades (Reynolds & Cuttance, 1992). The size of effect reported was replicated among studies based in England (Strand, 1997; Thomas & Mortimore, 1996). In addition, it has now been shown that schools with higher proportions of more able pupils achieved progress which was above that predicted from their overall prior attainments (Tymms & Henderson, 1995).

In order to make the case of 'school effects' more convincing, researchers have explored whether particular school features are associated with academic progress. What was known of these school features or processes at the time of the Argyll & Clyde study is described below. However, since then an extensive study reported significant effects for: high expectations by teachers, high levels of learning time, positive teacher morale, head teacher autonomy, parental support and time for teachers to prepare. This is compatible

with the school processes described below, but it was found that these only accounted for 5% of the variance in pupils' progress (Zigarelli, 1996). It seems that the more sophisticated the analysis and the inclusion of more factors used to adjust for pupil intake, the smaller the variance explained by school. However, although between school variance is smaller (say 5%) than that expected from early second generation studies (described above – 10%), intervening in school processes to maximise their potential regarding pupils outcomes offers another mechanism by which governments can improve pupils' performance: the current Labour government is committed to tackling child poverty, and any improvements made on that front may also improve pupils' educational outcomes.

2.1.3 School processes associated with educational outcomes

This section describes common findings across a number of studies on processes associated with educational outcomes. The reason for this is twofold. First, the results of these studies provide ideas about processes that are of interest to measure in this study. Second, by incorporating some of the same measures in this study, an assessment can be made as to whether the same processes are associated with both educational and health behaviour outcomes among pupils.

A review of the literature in this area identified common findings across a number of studies at the time of the Argyll & Clyde study (Levine & Lezotte, 1990). Continuity of staffing had positive effects, pupils performed better when the approach to teaching was consistent. Pupils performed better when their school day was structured in some way. In effective schools, pupils' work was organised by the teacher, who ensured that there

was plenty for them to do, yet allowed pupils some freedom within the structure. Negative effects were noted when pupils were given unlimited responsibility for a long list of tasks. Pupil progress was greater where teachers were stimulating and enthusiastic. Low noise level and movement around the class solely being work-related and not excessive was associated with stronger outcomes. Pupils progressed when teachers devoted their energies to a single particular subject area. Pupil progress was marred when three or more subjects were running concurrently in the classroom. Pupils performed better the more communication they had with their teacher about the content of their work. Not only was the value of monitoring pupil progress important to successful Head Teachers' (HTs') roles, but it was also an important aspect of teachers' planning and assessment. Low teacher / pupil ratios in classes were related to better outcomes for pupils.

Levine & Lezotte's review also highlighted dimensions related to the whole school ethos. It was important to have purposeful leadership by the HT combined with democratic decision-making. This occurred where HTs understood their schools' needs, were actively involved in the school and were good at sharing power with the staff. It was best if HTs did not exert total control over teachers, but consulted them, especially on topics such as spending plans and curricular guidelines. In successful schools, teachers were involved in decision-making. Pupil centred environment, linked to positive outcomes, was characterised by a high level of pupil industry with pupils enjoying their work and being eager to start new tasks. Positive academic expectation of pupils was related to stronger pupil outcomes. Successful schools tended to find ways to encourage pupils to have some form of responsibility within the school, this took different forms in different schools (could be Year Monitors / Prefects / Student

Councils). Effective schools tended to reward positive achievements or behaviour of pupils, rather than punish negative behaviours. A tolerant attitude by teachers to the enforcing of certain rules regarding dress, manners and morals was associated with good pupil outcomes. Schools with an informal open-door policy, which encouraged parents to get involved in reading at home, helping in the classroom and making educational visits, tended to be more effective. An effective school had a positive ethos (see a definition below). Overall the atmosphere was more pleasant in the effective schools. These conclusions are compatible with Reynolds et al.'s reviews and findings of Mortimore et al. (Mortimore, Sammons, Stoll, Lewis, & Ecob, 1988; Reynolds, Bollen, Creemers et al., 1996; Reynolds, Sammons, Stoll et al., 1996).

Many of these processes resonate with the Health Promoting School (HPS) recommendations outlined in the Introduction. For instance, encouraging pupil involvement in school life, rewarding positive behaviour and positive expectations are all likely to enhance pupils' self-esteem and quality of relationships with teachers and these are key goals of HPS. Given the compatibility between these concepts, processes associated with good educational outcomes are likely to lead to positive health behaviour outcomes too. Likewise, the definition of ethos developed by the Scottish Office Education Department (MacBeath, Thomson, Arrowsmith, & Forbes, 1992) overlaps with both HPS in much the same way as educational outcome processes discussed above. Ethos is defined by a good evaluation on the following criteria.

- **Pupil morale**, pupils enjoying school and finding it a safe and satisfying place to be.

- **Teacher morale**, feeling that they receive support and recognition from colleagues, senior management and parents.
- **Teachers' job satisfaction**, teachers valuing teaching as a profession and feeling that they are doing a worthwhile job.
- **The physical environment**, staff and pupils perceiving school as a safe, comfortable and pleasant environment for work and for leisure.
- **The learning context**, staff and pupils perceiving classrooms as a stimulating working environment and perceiving classroom learning as satisfying and productive.
- **Teacher-pupil relationships**, harmonious relations existing between teachers and pupils and whether or not they are treating one another with courtesy and respect.
- **Equality and justice**, agreement on policies and their interpretation and this reflecting on their day-to-day practice'.
- **Extra-curricular activities**, providing opportunities for learning and social activity out with the classroom, with pupils and staff viewing this as enjoyable and beneficial.
- **School leadership**, head teacher and senior management team providing inspiration and support to their staff and pupils.
- **Discipline**, the school providing an ordered environment in which teachers feel able to teach and pupils feel able to work without interruption or intimidation.

- **Information to parents**, parents believing that they are being kept informed and up to date about their children's progress and about developments in the school.
- **Parent-teacher consultation**, parents and teachers having opportunities to share their expertise and feeling that it has been of benefit to pupils, parents and teachers.

Creemers suggests that **consistency, cohesion, constancy and control** are important concepts for understanding effective schools. At school level, consistency between the components, which are synchronised with each other, is an important condition for success. All members of the school team should be involved in this, thereby creating cohesion. Schools should not change rules and policies frequently, thus failing to generate the constancy principle. The control principle not only refers to the fact that pupil achievement should be evaluated, but also to an orderly atmosphere in the school. Control also refers to teachers holding themselves and others responsible for effectiveness (Creemers, 1994). While Creemers' work was focused on educational outcomes, these concepts are likely to be important for health behaviour outcomes as the HPS emphasised the importance of working as a whole school, which would facilitate consistency and cohesion. Having a policy on HE and HP would probably facilitate constancy. Control seems less obviously relevant.

A model suggesting context is important to success (Scheerens & Creemers, 1989) is also likely to be relevant to health behaviours. Context refers to national policies, evaluation, training and support for staff and national guidelines.

2.2 School effects on health behaviours

2.2.1 History

Variation between schools in pupils' health behaviours schools has been noted in research for some time, most studies focusing on substance use (Dent, Sussman, & Flay, 1993; Ennett & Bauman, 1993; Hill, 1971; Newcombe, Maddahian, Skager, & Bentler, 1987; Skager & Fisher, 1989). Although in many studies individual level explanatory factors have not been controlled for, the range in use of substances between schools is so wide that 'school effects' are suggested (Amos & Hillhouse, 1991; Murray, Kiryluk, & Swan, 1984; Penny, Davies, & Robertson, 1988). However, these studies are limited because although suggesting 'school effects', they do not demonstrate them to the standard required by the definition given in the introduction of this thesis; namely, that adjustment should be made for known individual predictors of the outcome of interest.

The suggestion of 'school effects' was upheld by the MRC/Derbyshire smoking study, which found systematic school differences in smoking after controlling for several factors including social class (Swan, Murray, & Jarrett, 1991).

Despite recommendations to explore the processes by which schools have differential effects on pupils' substance use rates (Coggans, Shewan, Henderson, & Davies, 1991; Ennett, Flewelling, Lindrooth, & Norton, 1997), to date there has been little research into school variability.

> *'The lack of attention to school differences in substance use research is surprising given the growing interest in contextual effects on adolescent substance use and other risky behaviours.' (Ennett, Flewelling, Lindrooth et al., 1997)*

Interest in the school processes that may affect health behaviours arose from research into school-based interventions on health behaviours. It has been argued that a contributing factor to the ineffectiveness of many interventions may be that most research into the antecedents of adolescent smoking and most intervention programmes did not focus on the broader school environment, including school processes, in which adolescents smoke (Charlton, 1999; Department for Education and Employment, 1999; Reid, McNeill, & Glynn, 1995). It is possible that varying school processes may shape adolescents' health behaviour.

This view that school processes may influence smoking was supported by a recent review which argues that, although much of the evidence is methodologically weak, the overall picture indicates that there were variations in smoking rates between schools, after controlling for known predictors, and that these were likely to be influenced by school ethos (Aveyard, Markham, & Cheng, 2004).

Furthermore, Ennett et al.'s research found 'many statistically significant correlations between the school characteristics and substance use, we found substantially fewer significant correlations between the neighbourhood measures and substance use'. This suggests that school processes may potentially be more important than neighbourhood in explaining school rates of substance use (Ennett, Flewelling, Lindrooth et al., 1997).

As suggested earlier, the HPS approach is compatible with the concept of a 'positive climate', which developed from work on school effectiveness on academic outcomes (Mortimore, Sammons, Stoll et al., 1988). 'Positive climate' is a wide-ranging attribute, which emphasises teachers' focus on and reward of, positive aspects of pupils' behaviour. Mortimore et al. found that teachers rated positively by pupils gave the impression that they were enthusiastic and enjoying teaching, were interested in pupils as individuals and were willing to be involved in extra-curricular activities. However, unlike the school effectiveness literature, there is little research into the HPS that identifies links between school processes and health behaviour (Parsons, Stears, Thomas et al., 1997). If the HPS approach is to be evidence based, then research will need to identify which school processes have measurable effects on which health behaviours. Such evidence would provide a powerful incentive for changing specified school processes or culture.

2.2.2 Recent developments

There have been a number of studies concerned with evaluating the HPS, 21 being cited in a recent review (Denman, Moon, Parsons, & Stears, 2002). Most of these studies have tried to assess the effectiveness of a healthy school award or health promoting school scheme in changing health-related practice in schools and, only occasionally, knowledge, attitudes and behaviour of pupils. Furthermore, the studies that did look at behaviour of pupils did not adjust for pupil composition. However, during 2004 two second-generation studies ('school effects' studies using multi-level modelling) on health behaviours have been published. Both indicated 'school effects' on pupil

outcomes and both gave some indication of school processes or characteristics that are associated with these effects.

One of these studies (West, Sweeting, & Leyland, 2004) overlapped geographically with the current study. West et al.'s study was based on the longitudinal West of Scotland 11-16 study and involved 2,371 pupils from 43 secondary schools and measured four outcomes; smoking, drinking, drugs and diet (similar to the outcomes in this study except that physical activity was replaced by diet). The predictors of health behaviours used to adjust for pupil composition by West et al. were behaviour prior to secondary school (prior smoking etc.), age, gender, social class, deprivation, religion, family structure, parental control, parental care, spending money, parental drinking and/or smoking (parental drug use was not included, nor was parental diet). For the drug outcome parental drinking and parental smoking were both used. 'School effects' were found for all of the health behaviours except diet at S4 - the effects being very weak for diet at S2. In terms of school processes, school level smoking varied according to the degree of engagement (and involvement) of pupils with education and the number of teachers they got on with. Smoking was also associated with schools rated by researchers to have poorer ethos and larger schools: together these variables explained the school effect, no significant variance was left. For drinking and drugs, the variables used by West et al. to explain the 'school effects' did not do so fully. However, the significance and direction of results were generally the same as that described for smoking. For drinking, denomination was significant, with pupils drinking less in Catholic schools.

Another study was based on 23,282 pupils from 166 secondary schools in the West Midlands, England (Aveyard, Markham, Lancashire, Bullock, Macarthur, Cheng et al., 2004). The researchers used information on school pupils' social background and educational attainment. Schools achieving better results than expected given the social background of their pupils were labelled 'authoritative schools', while schools with poorer than expected results were called 'laissez-faire' schools. The researchers hypothesised that achievement on its own would not predict smoking, but 'authoritative schools' would have lower smoking rates while 'laissez-faire' schools would have higher rates. The results were as predicted, the researchers concluding that 'school culture is an independent risk factor for adolescent smoking. Schools providing effective support and control might protect pupils from smoking.' However, this research did not directly measure school culture, the researchers recommending that doing so would be an important step in being able to develop policies that could increase pupil engagement and reduce adolescent smoking.

Neither Aveyard et al. nor West et al. included peer health behaviour in the models on the grounds that friends are subject to the same school influences.

The current study was designed before either of these valuable papers were published. However, given the study's focus on describing schools that reduce or increase smoking after controlling for pupil composition, it is able to provide further insight into the nature of school processes / culture associated with smoking outcomes.

2.3 Selection of health behaviours for Argyll & Clyde study

The rationale for selection of the health behaviours took account of the importance of behaviour on the potential, future health outcomes of young people. In addition, evidence is provided that the health behaviours are becoming established during adolescence. As far as possible, the evidence is based on studies conducted in Scotland. The principal sources referred to repeatedly over this and the following sections are shown in Table 2-1 (below), which provides basic details of sample characteristics and sample sizes of each of the studies.

Table 2-1 Major sources – survey name, acronym, date(s) administered, ages and numbers of participants, mode (interview or self-completion questionnaire) and key references

Survey name	Acronym	Date(s)	Ages	Numbers	Mode
National Evaluation of Drug Education in Scotland (Coggans, Shewan, Henderson et al., 1991)	NEDE-S	1989-90	12-13 13-15	599 598	SC SC
Scottish Young People's Leisure & Lifestyles Survey (Hendry, Shucksmith, Love, & Glendinning, 1993)	YPLL-S	1987-91	13-16	4,352	SC
West of Scotland 11 to 16 Study: Teenage Health (West & Sweeting, 1996)	11 to 16	1994-5 1996 1999	11 13 15	2,586 2,371 2,196	SC SC SC
West of Scotland Twenty-07 Study: Health in the Community (youth cohort) (Macintyre, Annandale, Ecob, Ford, Hunt, Jamieson et al., 1989)	Twenty-07	1987 1988 1990 1993 1995-6	15 16 18 21 24-5	1,009 854 908 806 676	Int SC Int SC Int
Health Behaviours of Scottish Schoolchildren (Currie & Todd, 1992)	HBSC	1990 1994 1998 2002	11, 13,15 11,13,15 11,13,15 11,13,15	4,079 4,959 5,631 4,404	SC SC SC SC
Smoking, Drinking & Drug Among Young People in England (Boreham & Shaw, 2001b)	SDD-E	2000	7-15	7,089	SC
Smoking, Drinking & Drug Among Young People in Scotland (Boreham & Shaw, 2001a)	SDD-S	2000	12-15	4,774	SC
Scottish Health Survey (Shaw, 2000)	SHS	1998	2-15 16-74	3,892 9,074	Int Int

*Partly reproduced and adapted from (West & Sweeting, 2002), with the permission from West.

2.3.1 Smoking

Smoking is the biggest single cause of preventable death in the UK, killing more than 120,000 people each year, and the UK Chief Medical Officer's number 1 "tip for better health" is "Don't smoke and don't breathe others' tobacco smoke"(Choosing Health, 2004; Shibuya, Ciecierski, Guindon, Bettcher, Evans, & Murray, 2003). Many studies have shown a causal link between smoking and increased morbidity and mortality, including many cancers, chronic obstructive airways disease, coronary heart disease and stroke. Even a relatively short smoking career in adolescence can lead to poorer respiratory health (Townsend, Wilkes, Haines, & Jarvis, 1991). The UK government aims to reduce the number of 11-15 year olds who smoke from 13% in 1996 to 9% in 2010 (Department for Education and Employment, 1999), and there are good reasons for prioritising reduction of young people's smoking. Most smokers begin smoking in adolescence, and decreases in adult smoking since the 1970s have not been accompanied by equivalent decreases in adolescent smoking (ASH, 2003; Townsend, Wilkes, Haines et al., 1991). Adolescence is a critical period in the establishment of smoking habits for most smokers. Moreover, the earlier smoking begins, the harder it is to give up later (Coambs, Li, & Kozlowski, 1992).

The '11 to 16', HBSC and SDD-S studies all showed an increase for regular or occasional (<1 cigarette per week) from around 6% at age 12 to around 30% at age 15. At age 13, gender differences appeared, such that by age 15 around 37% of females smoked compared to around 24% of males (Boreham & Shaw, 2001a; Todd, Currie, & Smith, 1999; West & Sweeting, 2002).

Research on 'school effects' on health behaviours has explored smoking as an outcome and this provides reference points for the findings of this study (Aveyard, Markham, Lancashire et al., 2004; West, Sweeting, & Leyland, 2004)

2.3.2 Alcohol

While moderate alcohol consumption is not of concern and may even be beneficial, heavy or 'binge' drinking can lead to physical and psychological health problems such as cirrhosis, high blood pressure amnesic syndrome, together with accidents, social and family problems, crime and violence. It has been estimated that the total annual societal costs of alcohol misuse in Scotland at 2001/02 prices is £1071 million (Catalyst Health Economics Consultants Ltd., 2001).

There is growing concern over heavy drinking and 'binge' drinking among adolescents, evidenced mainly by school-based surveys (Forsyth & Bernard, 2000). Drinking and intoxication are now perceived as normative among adolescents (MacAskill, Cooke, Eadie, & Hastings, 2001).

There are consistent reports of the tendency for 'binge' drinking among adolescents (West & Sweeting, 2002). For instance (see Table 2-1 for information on studies cited), among the 40% of the '11-16' 15 year olds who had drunk in the past week, mean units were 11 (males) and 8 (females), while 33% males and 15% females had consumed over 14 units (West & Sweeting, 2002). Rates of having been drunk (self-defined) four or more times among HBSC 15-year olds increased from 21% in 1990 to 34% in 1998, very similar to the rate of 31% among '11 to 16' 15 year olds (Todd, Currie, & Smith,

1999). Of the 39% of 12-15 year olds in the SDD-S survey (Boreham & Shaw, 2001a) who drank in the past week, mean units increased from 10 (males) and 6 (females) in 1990 to 13 (males) and 9 (females) in 2000, and at the later date, 32% males and 22% females had consumed over 14 units in the past week.

2.3.3 Illicit drug use

Illicit drugs may impact directly on health. The Registrar General for Scotland published a summary report about drug related deaths in Scotland (2004). In 2004, there were 356 drug-related deaths. Of the 356 deaths, 63% were related to heroin / morphine, 32% involved diazepam and methadone was involved in 22%, though some deaths were caused by multiple drug use. Fewer deaths involved cocaine (11%) and ecstasy (5%). Over one third of these deaths were concentrated around Glasgow and its environs including Argyll & Clyde (the locality of this study), the rest were spread across Scotland with 10% in Lothian and 10% in Grampian. Of those who died 87% were under 45 years and almost a quarter were under 25 years. Thus drug related death is a concern for young people in Scottish society, particularly in the vicinity of this study. Furthermore, illegal drugs do not just impact on health directly, but also indirectly, for example via violence or accidents (McKeganey & Norrie, 2000) and on social and family problems, crime and violence (Galbraith, 1999).

It should be noted that there is very low prevalence of the drugs associated with drug deaths in Scotland among the age group of pupils in this sample. Looking across studies from Table 2-1, the '11-16' study, HBSC survey of 15 year olds and the SDD-S survey of 12-15 year olds, the figures indicate that by 15, at least a third of Scottish young people have some experience of cannabis and around one-in-ten of the three next most

popular drugs, glues/solvents, magic mushrooms and amphetamines (Boreham & Shaw, 2001a; Todd, Currie, & Smith, 1999; West & Sweeting, 2002). Regular use increases with age. For instance, among '11-16' respondents, 15% had ever tried drugs at 13 and 40% at 15; HBSC (1998) 15% had used cannabis at 13 and 40% at 15; and finally for SDD-S, 4% had ever used drugs by 12 and 33% by 15 (Boreham & Shaw, 2001a; Todd, Currie, & Smith, 1999; West & Sweeting, 2002). The concern is that a proportion of the young people who are using softer drugs will move on to more dangerous drugs. Furthermore, there is the risk that young people will mix alcohol and / or one or more drugs together, and that makes the effects harder to predict (Parliamentary Office of Science and technology, 1996).

Cannabis is by far the most common drug used by young people. Frequent use of cannabis is associated with a host of negative outcomes including dropping out of school, having unprotected sex and being involved in delinquent behaviour (Brook, 1999), Cannabis use per se does not necessarily cause these problems. Substance users, even before they start misusing alcohol and drugs, are less likely to be self-reliant, confident, sociable, trustworthy or able to plan ahead. Cannabis use, however, may exacerbate their problems (Bogt, Fotiou, & Gabhainn, 2004; Shedler & Block, 1990). Heavy use is associated with problems at school, depression, physical ill health, risk taking and deviance (Kandell, 1997). Recent studies offer converging evidence that cannabis use may trigger psychosis and depression, particularly among people who are prone to them (Arseneault, Cannon, Poulton, Murray, Caspi, & Moffit, 2002; Coffey, Carlin, Degenhardt, Lunskey, & Hall, 2002; Van Os, 2002; Zammit, Allebeck, Andreasson, Lunberg, & Lewis, 2002). Most people smoke cannabis alongside tobacco, and there are long-term physical health impacts associated with smoking (see above, e.g.

oral and respiratory tract cancers) (Parliamentary Office of Science and technology, 1996)

2.3.4 Physical Activity

There is considerable concern in all developed nations about low levels of physical activity in the population which, among adults, is associated with greater cardiovascular morbidity and mortality as well as higher rates of obesity, non-insulin dependent diabetes and osteoporosis (Bouchard & al., 1990; Pate, Pratt, Blair, & al., 1995). The health benefits for young people are not so immediately evident though small beneficial effects of physical activity have been demonstrated in relation to weight loss, fatness and obesity, skeletal health and growth, and possibly mental health as well (Biddle, Sallis, & Cavill, 1998). Physical activity in youth also tracks for activity in adulthood, the only negative aspect being a greater risk of musculo-skeletal injury, most commonly associated with over-exercise (Prior, 1998).

Physical activity is challenging to measure as it encompasses formal sporting activities as well as informal activities such as walking and dancing, and as a result, different studies have measured it in different ways. For instance, between 1998 and 2000, **sport**scotland presented cards to young people containing 37 sports and asked them to indicate whether they had taken part in the last four weeks. They found that 96% of young people aged 12 to 18 had participated. No gender difference was found (**sport**scotland, 2001).

The 'Twenty-07' study (see Table 2-1) conducted 10 years earlier than the **sport**scotland survey showed that at age 15 PE made a bigger contribution to overall levels of participation among females than males. In addition, after leaving school, participation fell for all young people, particularly for females (West, 1986).

HBSC (see Table 2-1) has, at each phase of the study, asked young people about the frequency with which they exercise (in their free time) to a level which makes them out of breath and sweaty (Currie & Todd, 1992). On this definition (which explicitly excludes school-based exercise), among Scottish 15 year olds in 1998, 85% of males and 61% of females reported 'vigorous' exercise at least twice a week, and 54% and 25% respectively 4 times a week. This again indicating less activity among females (Currie, 2000; Hickman, Roberts, & Gaspar de Matos, 2000).

Currently, the Scottish Executive also has a number of initiatives to encourage increased physical activity as part of their strategy to reduce obesity and to generally make people living in Scotland more active (Physical Activity Task Force, 200.).

2.4 Predictors of adolescents' health behaviours

The next section reviews what is known about the predictors of the selected health behaviours, since it is these predictors that will be used to control for individual level factors. More evidence exists for smoking, followed by alcohol & drugs, the least for physical activity. Each section flags research conducted in Scotland around the time of the current study together with information that has been published since then (the key studies are described in Table 2-1). The list of predictors is not exhaustive; for instance,

the author acknowledges that peers are reported to be an important predictor of young people's health behaviours (Audrain-McGovern, Rodriguez, Tercyak, Cuevas, Rodgers, & Patterson, 2004). However, as peers are subject to the same school influences it was decided not to include peer health behaviour in this study. Recent research in this area has also excluded peer behaviour (Aveyard, Markham, Lancashire et al., 2004; West, Sweeting, & Leyland, 2004).

2.4.1 Gender

NEDE-S, *Twenty-07* and HBSC studies (see Table 2-1) all collected data around the same time as this study. These studies had compatible findings such gender was significantly related to smoking (girls smoked more than boys between 13 and 16 years), but showed reduced or no effects on drinking (alcohol) or drug use (Coggans, Shewan, Henderson et al., 1991; Currie & Todd, 1992; Macintyre, Annandale, & Ecob, 1989). Many other studies have found that the rate of smoking among teenage girls is higher than among boys and the gap has increased (Goddard, 1990; Lloyd, Lucas, & Holland, 1998).

The YPLL-S study (see Table 2-1) collected data on physical activity around the same time as this study; it found higher rates among boys, with school PE making a much greater contribution to female activity, such that gender difference in activity levels widens markedly post school (Hendry, Shucksmith, Love et al., 1993). A more recent review of physical activity also concluded that physical activity is significantly greater among boys (Sallis & Owen, 1999).

2.4.2 Age

As expected, the NEDE-S and HSBC studies found that increasing age was significantly related to higher rates of smoking, illegal drug use and alcohol consumption (Coggans, Shewan, Henderson et al., 1991; Currie & Todd, 1992). Subsequently, the HSBC study continued to report that age was related to increased smoking, drinking and drugs, as did the '11-16' and SDD-S studies (Currie & Roberts, 2004).

Information on increased physical activity among younger school aged boys and girls was reported by two reviews (data collected after the Argyll & Clyde study). The reviews reported physical activity to be significantly more likely among younger people: this interacts with gender and is more likely, particularly among younger boys (Sallis & Owen, 1999; West & Sweeting, 2002).

2.4.3 Social Class

The impact of social class on adolescents' health behaviours generally was not clear at the time of the Argyll & Clyde study. There is still debate at the present time.

With regard to smoking, the NEDE-S (Coggans, Shewan, Henderson et al., 1991), found that social class was related to smoking, such that lower socio-economic status was associated with a higher rate of smoking. Likewise, the Twenty-07 study found that smoking was significantly higher among adolescents from manual families than those from non-manual families: even after controlling for sex and parental smoking, social class was still significant (Green, Macintyre, West, & Ecob, 1991b). However, in a study of English 15 to 16 year olds, no significant relationship between smoking and

parental social class was found (Brannen, Dodd, Oakley, & Storey, 1994). Similarly, The YPLL-S (see Table 2-1), found no effect of head of household's occupational class on young people's smoking (Glendinning, Hendry, & Shucksmith, 1995; Glendinning, Shucksmith, & Hendry, 1994). In the HBSC a significant social class effect for younger age groups (11 –13) was found, but this effect disappeared among the older age groups (15), implying an interaction between social class and age within the adolescent years (Currie, Todd, & Wijckmans, 1993). All these studies had data collected around the same time as the Argyll & Clyde study.

Neither the NEDE-S nor the YPLL-S studies found social class to be significant for alcohol (Coggans, Shewan, Henderson et al., 1991; Glendinning, Hendry, & Shucksmith, 1995). The HSBC study, however, found a relationship between social class and drinking for 15 year olds, but not 11 year olds (drinking higher among higher social classes), again raising the possibility of an interaction with age (Currie, Todd, & Wijckmans, 1993). There are scattered United States findings that corroborate the HSBC study, suggesting that parental occupation and parental prestige are positively related to adolescent drinking (Hawkins, Catalano, & Miller, 1992): thus indicating higher alcohol use among adolescents of higher socio-economic status. In relation to the impact of low family socio-economic status on adolescent alcohol use, Hawkins et al. (1992) argue that adolescent alcohol use increases only when poverty is extreme, but notes that at this extreme level most adolescent risk factors and problem behaviours also increase. Again these data were collected around the same time as the Argyll & Clyde study.

The NEDE-S study found social class to be significant for drug use (Coggans, Shewan, Henderson et al., 1991). Other studies have not found this relationship (Forsyth & Barnard, 1999)

Subsequently, it has been suggested that heavier smoking, heavier drinking and potentially more problematic drug use are all more pronounced among working-class youth and previous studies did not explore interactions with heaviness of use (Sweeting & West, 2001).

At the same time as the Argyll & Clyde study, the HSBC study found that 15 years olds from father's occupational groups IV & V (manual workers) were less likely to exercise in their free time than those from other social class groups: this relationship did not hold for younger age groups (Currie, Todd, & Wijckmans, 1993). The HSBC study did not include school based physical activity in their definition. A review of studies that predominantly did include school based education concluded there was no evidence (apart from a few sports) that exercise levels vary between social classes in youth (West & Sweeting, 2002)

2.4.4 Family structure

Due to the increase in the number of 'non-traditional' families, concerns have been raised about the impact of family structure on young people. This has resulted in a number of studies investigating the influence of family structure. In comparing lone-parent families with two parent families, significantly higher rates of adolescent smoking were found among young people in the former (Goddard, 1990). The YPLL-S

had similar results, but also found smoking prevalence to be raised among adolescents from reconstituted households, and this was independent of perception of parenting practice (Glendinning, Shucksmith, & Hendry, 1997). The Argyll & Clyde study measured family structure, but not parenting practice. The Twenty-07 study also reported similar results (West & Sweeting, 2002). The data from the studies cited were collected around the same time as the Argyll & Clyde study.

The YPLL-S study reported that adolescents from intact families were less likely to be regular drinkers, those from reconstituted families were most likely to be regular drinkers, while those from lone parent families occupied an intermediate position (Shucksmith, Glendinning, & Hendry, 1997). More recently, a very large European study investigated this issue amongst 34,001 adolescents aged 15-16 years. This cross-cultural study over 11 European countries used random sampling to select schools and classes, and all students present on the day completed the questionnaire (86-92 per cent response rate). Adolescents who lived with both biological parents (intact families) had reduced frequency of heavy drinking compared with those in single mother, single father, or 'reconstituted' families. Interestingly, the positive effect of belonging to an intact family was stronger in societies where adolescent culture favoured heavy drinking (Bjarnason, Andersson, Choquet, Elekes, Morgan, & Rapinett, 2003). In the New Zealand Christchurch cohort, early family breakdown was associated with heavier alcohol use at age 14 and this effect was maintained after adjusting for age 8 conduct problems and earlier age of first alcohol use (Fergusson, Lynskey, & Horwood, 1994). Longitudinal research from Australia has also linked family breakdown as an independent risk factor for the development of youth substance use generally (Coffey, Lynskey, Wolfe, & Patton, 2000).

Several studies, including Twenty07, have shown that youth from disrupted families evidence more frequent drug abuse (Doherty & Needle, 1991; Needle, Su, & Doherty, 1990; West & Sweeting, 2002).

With respect to physical activity and family structure, very little evidence exists. Only one study was found that assessed physical activity and family structure. This found an increase in sedentary behaviour in girls from single parent families (compared with living with both biological parents), an effect not found for boys (Brodersen, Steptoe, Williamson, & Wardle, 2005).

2.4.5 Parental health behaviours

A general finding in the literature is that parents are an important influence on children's health behaviours. In respect of children's smoking behaviour, one of the most well documented family influences is parental smoking. For example, the Twenty-07 study found that adolescents who have smoking parents are twice as likely to be smokers as those who have non-smoking parents (Green, Macintyre, West, & Ecob, 1991a). Others have replicated that finding (Dalton, Bernhardt, Gibson, Sargent, Beach, Adachi-Mejia et al., 2005; Wen, Tsai, Cheng, Hsu, Chen, & Lin, 2005). There is less information pertaining to health behaviours beyond smoking.

Parents' own use of alcohol is related to adolescents' alcohol consumption. An Australian cross-sectional study (Quine & Stephenson, 1990), with 2,336 primary school children in Grades 5 and 6, found that even young children were significantly

more likely than other children to intend to drink, or to have drunk a glass of alcohol, if their parents drank at least weekly. They were also more likely than other children to accept a glass of alcohol from a friend if their parents drank at least weekly.

A literature review indicated a consensus that children of substance abusers exhibited greater use of illicit drugs (Johnson, 1991). Research on children of substance abusers is still limited, but the evidence indicates that youth in drug-affected families are exposed to a multitude of conditions identified as risk factors for the development of problems in childhood and adolescence (Hawkins, Catalano, & Miller, 1992).

The Sallis et al. review (Sallis & Owen, 1999) identified a relationship between parental encouragement of physical activity and their children's activity levels, but did not make an association with reported physical activity of parents.

2.5 Conclusion

Reviewing literature from the field of 'school effects' on pupil outcomes reveals the importance of adjusting for pupil composition of schools. Much of the school based research on adolescents' health behaviours has found such large differences in unadjusted rates that 'school effects' are suggested. Although without adjusting for pupil composition the evidence is inconclusive. Other potentially relevant research relating to evaluations of the HPS provides important evidence on schools ability to change practices, but does not link this to pupil behaviour. However, two studies (Aveyard, Markham, Lancashire et al., 2004; West, Sweeting, & Leyland, 2004) that did adjust for pupil composition and used multi-level modelling provide support for 'school

effects' on smoking: only one of the studies (West, Sweeting, & Leyland, 2004) included other outcomes, and it also found 'school effects' for drinking and drug use. Both of these key studies were limited in that they did not collect detailed information on school processes that may be responsible for the 'school effects'. The case study method used by this study will help address this important dimension, and in turn will help support policy (towards all schools becoming a HPS) or suggest amendments to policy.

A number of characteristics / processes of effective schools in relation to educational outcomes were identified: these included purposeful leadership by HT, involvement of teachers' in decision-making, communication between teachers and pupils, positive academic expectations, opportunities for pupils to take responsibility, a positive rewards system, parental involvement and a positive ethos. These characteristics / processes can be compared with the findings from this study to assess whether the same school processes appear to be important for both educational attainment and health outcomes.

The selection of health behaviours took account of the likely impact on future health of the young people, together with the fact that they are primarily established during adolescence. The health behaviours selected were smoking, drinking, illegal drug use and physical activity. While not exhaustive, a review of predictors identified several key variables. Gender was related to smoking, girls smoked more than boys between 13 & 16. Similarly, with respect to physical activity, girls were less physically active than boys. As expected, increased age was associated with higher rates of smoking, illegal drug use and alcohol consumption, while physical activity diminished with age and interacted with sex (higher among younger boys). At the time of the Argyll and Clyde

study, the relationship between social class of parents and young people's smoking, drinking and drug use was unclear, different studies reporting conflicting results. Subsequently, an explanation that may account for some of the inconsistencies between studies has been suggested, namely, that heavier smoking, heavier drinking and potentially more problematic drug use are all more pronounced among working-class youth, and previous studies did not explore interactions with heaviness of use. Social class also gave mixed results for physical activity. Among 15 year olds, exercising out with school is thought to be related to social class, such that youth from manual backgrounds were less likely to exercise in their free time than those from non-manual backgrounds; however, this relationship did not hold for younger age groups. Furthermore, when school based physical activity was taken into consideration, no relationship with social class was found. Living with both parents was associated with lower prevalence of smoking, drinking (children from reconstituted families having the highest rate) and drug use. For physical activity, girls from lone parent families were less active than those living in intact families, an effect not found for boys. Parents' health behaviours were important for smoking, drinking and drug use, such that, when parents smoked their child was more likely to smoke, an effect extending to other health behaviours. No direct evidence was found for physical activity; however, parents' encouragement of physical activity was associated with higher activity among young people.

In summary, this thesis aims to establish whether 'school effects' can be found for a range of health behaviours, namely, smoking, drinking, illegal drug use and physical activity after adjusting for social and economic characteristics of pupils. Case study schools will then enable an examination of the processes associated with 'school

effects', which can then be evaluated in terms of the theories outlined in this literature review, in particular the health promoting school concept. The next chapter justifies the use of mixed methods and describes the methodology used

3 Methodology

In order to explore the aims and objectives outlined at the end of Chapter 1 this study utilises mixed methods (quantitative and qualitative data). Using mixed methods enables integration of outcome and process data that facilitates a fuller and richer examination of whether 'school effects' are associated with health education, health promotion and processes within schools. Furthermore, triangulation (the integration method used in this thesis) enables an assessment of the robustness (across different methods) with which schools approximate the HPS.

3.1 Rationale for using mixed methods

This section presents a philosophical argument for the use of mixed methods. First, the 'traditional' view (challenged fairly recently) that it is logically inconsistent to use mixed methods is described. Second, an argument is presented that there is not such a clear logical divide between quantitative and qualitative methods, and in fact, there is much overlap between the logical processes. Finally, the methods of integration used in this study, predominantly triangulation, are identified.

3.1.1 Philosophy and methodology

Traditionally, a gulf is seen to exist between qualitative and quantitative research, with each belonging to distinctively different paradigms (Layder, 1988).

3.1.1.1 Traditional definitions

Quantitative methodology is characterised by a perspective on social research which follows that of the natural sciences, and in particular, a positivist approach to social phenomena. Positivism is frequently described in the methodological literature as focusing on operational definitions, objectivity, replicability and causality. The social survey is typically seen as the preferred instrument of research because it can be readily adapted to such concerns. Through questionnaire items, concepts are operationalised into variables which are linked together to frame hypotheses, often before data are collected, and are then tested by the data (Brannen, 1992). This methodology is often described as objective, such objectivity being maintained by the distance between observer and observed and the possibility of performing external checks on the questionnaire. Further, employing the same research instrument in another context (e.g. the same individuals over time) allows assessment of reliability of the instrument. The problem of not being able to attribute causality between the dependent and independent variables has been eased by the emergence of path analysis and related regression techniques. Longitudinal methods also facilitate the understanding of causality which is mainly a problem for cross-sectional research.

In attributing labels, such as positivist or empiricist, an essentially epistemological (discussion on the nature of knowledge) point is being made, namely that research of this type is underpinned by a distinctive theory of what should count as 'scientific' knowledge. Surveys are seen as instruments for this type of research. The methodological 'gold standard' is generally thought to be experimental designs, particularly randomised control trials (Fitz-Gibbon, 1996). However, secondary analyses

of pre-collected data are also often recognised as exhibiting the same underlying philosophical premises (Bryman, 1988).

Qualitative methodology differs in a number of ways from the above. The essence is a commitment to seeing the social world from the point of view of the actor, a theme rarely omitted from methodological writings within this tradition. Because of the commitment to see through the eyes of one's subjects this approach is explicitly reflexive. There is an emphasis on contextual understanding so that behaviour is to be understood in the context of meaning systems employed by an individual in a particular group in a specific society. The qualitative researcher begins by defining very general concepts related to the research question, concepts that are refined, and where necessary, altered, as data are collected and the research progresses. Phenomenology is the root theory of knowledge underlying qualitative methods. Qualitative research is much more fluid and flexible than quantitative research in that it explicitly accommodates a dynamic engagement with the data; thus this methodology allows the incorporation of sometimes unanticipated findings and the possibility of altering research plans in response to such occurrences. This contrasts sharply with the quantitative methodologist's research design with its emphasis upon fixed measurements, hypothesis testing and a much less protracted fieldwork involvement (Bryman, 1988).

For quantitative research, variables are the vehicles or means of the analysis while, for qualitative research, themes may constitute the product or outcome (Brannen, 1992).

One of the difficulties in representing the divergence between the two methodologies derives from a tendency for philosophical issues and technical issues to be treated

simultaneously and occasionally confused. Philosophical issues relate to questions of epistemology, in this case the appropriate foundation for social research. By contrast, technical issues relate to considerations of the superiority or appropriateness of methods of research in relation to one another. Much of the literature in the 70s viewed the latter as deriving from the former; that is, the choice of a particular epistemological base reflects a preference for a particular method on the grounds of its greater philosophical appropriateness. The two forms of argument, philosophical versus technical issues, around data collection for a particular piece of research, most frequently become confused when writers have sought to articulate the relationships between the two methodologies: furthermore, there is a tendency to simplify the range of types of qualitative and quantitative research, an issue that will be discussed in more detail below.

In conclusion, philosophy cannot guide us whether to accept or reject techniques based on empiricist or phenomenological theories. It does clarify the incompatibility between those two theories. However, the practice of social research results in techniques that, despite been rooted in different epistemological theories, have much in common. These overlapping issues are discussed below and have led some authors to reject epistemological roots as a basis by which to determine method.

3.1.1.2 Overlap in logical processes

Despite the epistemological distinctiveness of empiricism and phenomenology, the process of conducting social research, a discipline that has derived method from each of these traditions, leads to an overlap in logical processes. Latour advises researchers that

it is 'important that we do not overemphasise the significance of the epistemological distinction' (Latour, 1987). His discussion of the role of number and formalism in science is instructive here. It suggests that quantification should only be one manifestation of the common practice of deriving coherent recording of information or evidence in science. On this argument, quantitative and qualitative research are simply different forms of the analytic practice or re-representation in science, in that both seek to arrange and rearrange complexities of raw data. Brannen points out that quantitative and qualitative techniques both require the use of induction as well as deduction; therefore, they both have to consider criteria for findings derived from limited observations to be generalised beyond the sample studied (Brannen, 1992). This study uses qualitative data in a deductive manner; this is described in more detail below. For quantitative techniques inferential statistics are frequently used. Henwood & Pidgeon suggested that criteria for qualitative research should be (Henwood & Pidgeon, 1992):

1. **The importance of fit between the data and emergent theory**, with the categories used being given comprehensive definitions (which produces a public product by which the researcher and peers can evaluate fit).
2. **The theory is integrated at diverse levels of abstraction**. The goal here is to ensure that the theory at all levels of abstraction is meaningfully related to the problem domain (Glaser & Strauss, 1967)
3. **Reflexivity** - that is that the role of the researcher in the research process should be highlighted and revealed in the research process (see also the end of this section).

4. **Documentation** - this exercise provides an account of what is done and why it is done, at all phases of the research process. This leaves a 'paper trail' open to external audit (Lincoln & Guba, 1985).
5. **Theoretical sampling and negative case analysis**. As there is no compunction in qualitative research to sample multiple cases where this would not extend or modify emerging theory, sampling is therefore explicitly driven by theoretical concerns. A key consideration in theoretical sampling is 'negative case analysis' (Kidder, 1981). This parallels the Popperian strategy (Popper, 1963) of seeking wherever possible to falsify working hypotheses derived from an emergent model in that, as analysis of initial cases proceeds, further cases would be selected for their disconfirming potential. However, in the Popperian account of this strategy, the goal would be the logical corroboration of existing theory by failure to falsify. This contrasts sharply with the goal of negative case analysis in qualitative research, which is to aid in the generation of conceptually dense, grounded theory. There tends to be an emphasis in qualitative research on deriving a framework rather than working within one. Kuhn's criticism of Popper's theory would support the way grounded theory uses negative case analysis. Kuhn argued that Popper's theory was appropriate to one paradigm (a collection of beliefs shared by scientists of a particular discipline), that it was not necessarily appropriate to scientists from a different discipline, in this case social scientists. Social scientists may find that a theory holds true for one subgroup of people, but not others, so disproving it among one subgroup does not mean that the theory does not still have value when applied to another subgroup. Rather, Kuhn argued that accumulated evidence across a number of studies may lead to a 'paradigm shift' (change in the way scientists view that discipline) in much the

same way as the work of Copernicus led to the understanding that the world was round and not flat (Kuhn, 1970).

6. **Transferability of findings to a more general significance is important in science**. This term refers to the application of findings of a study in contexts similar to the context in which they were first derived. This places an onus on the researcher to fully report on the contextual features of a study.

These points on the overlap of logical processes are very compatible with what Hammersley calls 'lack of one-to-one correspondence' (Hammersley, 1992a)

3.1.1.3 Lack of one-to-one correspondence

Hammersley (1992) in his book chapter entitled 'Deconstructing the qualitative-quantitative divide' identifies seven main component meanings of the qualitative/quantitative distinction, and these are listed below (Hammersley, 1992b). He argues that these issues are not as simple or as closely related as is sometimes believed.

1. **A focus on meanings rather than behaviour**. Qualitative research is often portrayed as focusing on meanings. However, most qualitative research does not restrict its focus this narrowly. It seeks to describe and explain both perspectives and behaviour, recognising that the behaviour does not merely flow from the perspectives, and may even be discrepant with it. Conversely, much quantitative research is concerned with attitudes rather than solely with behaviour.
2. **Idealism versus realism**. History shows that there is little reason to believe that quantitative research must be realist and qualitative research idealist, and there

are many examples where realists have thwarted the advance of scientific theory (Hammersley, 1989)

3. **Qualitative versus quantitative data.** It has often been pointed out that ethnographers regularly make quantitative claims in verbal forms, using formulations like 'regularly', 'frequently' or 'not atypical'. Alternatively, many quantitative researchers use their data descriptively rather than statistically (Bryman, 1988).
4. **The investigation of natural versus artificial settings.** The distinction between natural and artificial settings is spurious. What happens in a school class or in a court of law, for example, is not more natural or artificial than what goes on in a social psychological laboratory. To treat classrooms or courtrooms as natural and experiments as artificial is to forget that social research is itself part of the social world (Hammersley, 1992b). Therefore the terms 'natural' and 'artificial' have misleading connotations. And while the issue of ecological validity is important, it is not the only important methodological issue. Nor does research in 'natural' settings guarantee ecological validity, any more than research in 'artificial' settings automatically debars us from it.
5. **Adoption or rejection of natural science as a model.** Thomas and Znaniecki, two influential advocates of case study methods in the 1920s wrote the following: 'The marvellous results attained by rational technique (science) in the sphere of material reality invite us to apply some analogous procedure to social reality. Our success in controlling nature gives us confidence that we shall eventually be able to control the social world in the same measure...' (Thomas & Znaniecki, 1927). In anthropology Boas, Malinowski and Radcliffe-Brown all took the natural sciences as a paradigm for their approach to the study of

primitive society (Hammersley, 1989). What is involved is a matter of degree. Once again, we have a complex set of considerations that resist reduction to a simple contrast.

6. **An inductive versus a deductive approach.** Research tends to move from ideas to data as well as from data to ideas. Of course one can distinguish between studies that are primarily exploratory, being concerned with generating theoretical ideas, and those which are more concerned with testing hypotheses. The former need not be quantitative and the latter not necessarily qualitative (Hammersley, 1992b).
7. **The identification of cultural patterns as against seeking scientific laws.** As discussed above quantitative research can involve descriptions of patterns. While the analytic induction (a method of reasoning by which a general law or principle is inferred from observed particular instances) attributed to qualitative work involves reconstructing theories when counter examples are discovered. However, this is only sensible if we assume that theories consist of deterministic laws that apply to all cases. Thus the distinction between identifying patterns and pursuing laws seems again to provide little clear basis for the division between quantitative and qualitative methods.

The above implies that the distinction between quantitative and qualitative approaches does not reflect the full range of options a researcher faces and that it misrepresents the basis on which decisions should be made. What is involved is not a crossroads where the researcher has to go left or right; the distinction between qualitative and quantitative method tends to obscure the complexity of the problems that face researchers and threatens to render their decisions less effective than they might otherwise be.

Neither empiricism nor phenomenology (the roots of both quantitative and qualitative methodologies respectively) is universal (applying to all of knowledge or paradigms), therefore they both have limitations: as do all other theories of knowledge.

Given the overlap between quantitative and qualitative a mixed methods approach appeared justified. In this case, self-completed questionnaires were appropriate to collect data from pupils on their health behaviours. An audit revealed the health education and health promoting activities of each school. Finally, semi-structured interviews were used to elicit staff and pupils views of what is happening in the school and to gain information on school ethos from the perspective of a range of staff and pupils within each school. Semi-structured interviews were chosen over open-ended interviews as the former enabled the researcher to cover the same themes within each school to facilitate comparisons within and between schools.

3.1.2 Mixed methods used by the Argyll & Clyde study

There are a number of different ways in which quantitative and qualitative research can be combined. The use of mixed methods in this study owes much to Bryman's useful overview (Bryman, 1988). The forms of mixed methods used by the Argyll & Clyde study are indicated below.

First, triangulation was used. When findings from one type of study are checked against the findings deriving from the other type, with the aim of enhancing the validity of the findings, this is called triangulation. The Argyll & Clyde study triangulated data from

the three sources: pupils' quantitative questionnaires, audits of schools' Health Education & Health Promotion and interview data collected from teachers and pupils in each school. Second, the qualitative research facilitated the quantitative research. While piloting, qualitative interview data facilitated the construction of questions used in the quantitative questionnaire. In addition, qualitative interviews were used to check pupils' understandings of questions and answer options, contained within the questionnaire. Third, the quantitative research facilitated qualitative research. The selection of case study schools (interviews in all schools conducted in advance of quantitative data), was based on the results of the analysis of quantitative data. Fourth, structure and process were considered: the quantitative data were used to assess which schools were adding value and which were losing value in terms of pupils' outcomes. The qualitative data were used to elucidate the processes associated with these outcomes.

Fifth and finally, Researchers' and subjects' perspectives were considered. The quantitative research was driven by the Researcher's interest in 'school effects' on pupils' health behaviours. The qualitative data, while semi-structured in terms of the questions asked (and to that extent also driven by the Researcher), allowed the teachers and pupils to respond in an open-ended manner whereby their perspectives were reflected. Thus this study combined researchers' and subjects' perspectives. The issue of reflexivity is critical to qualitative research (Altheide & Johnson, 1994). For instance, in the case of this study it is important to consider a number of issues. The funding was provided partly by the employers of the teachers interviewed (Strathclyde Regional Council Education Department) and the teachers were interviewed in their work environments (pupils in their school environment), albeit in privacy and with assurance of confidentiality. As the interviewees were interviewed about their views and attitudes

relating to their school environment, it is possible that teachers would be motivated to reflect their schools in a positive light. So, in this study teachers from all schools were asked the same questions, by the same researcher, and what is of interest is the relative comparison (and consistency) of reports within and between each school. So, even if all teachers are producing a positive view, it may still be possible discriminate between the schools. Furthermore, it may be that there is less consistency among staff in schools that are not working at a whole school level, which would be a finding in its own right. In addition, it was also thought beneficial that the Researcher should not know how well the schools had performed in terms of pupils outcomes in advance of conducting the interviews, in order that the Researcher could not, albeit subconsciously, lead the interviewee into thinking their school had done well or otherwise.

3.2 Design

3.2.1 Background

The author designed the research instruments (seeking expert advice when required) and also collected the data. The data collection was part of a wider, jointly funded initiative as described in the Introduction. The aim of the initiative was to evaluate 'Health and AIDS' education in both 'traditional' (Level 1) and 'health promoting school' (Level 2) contexts (Scottish Health Education Group (SHEG) & Scottish Consultative Council on the Curriculum (SCCC), 1990). Both these contexts are described below:

1. Level 1 input involved staff development and support for teaching health and AIDS education within classroom teaching (curriculum) terms only.

2. Level 2 input involved staff development and support for teaching health and AIDS education within classroom teaching (curriculum) terms and work with all concerned on the wider context of the health-promoting school.

In other words the difference between the two levels of input was that level 2 schools (4 schools) were meant to develop their health education as part of the whole-school system, whilst in level 1 schools (4 schools) support was to be confined to the health education curriculum for classroom teaching. Thus it was envisaged that level 2 schools would strive for consistency and co-ordination of all aspects of the school system that have relevance for health promotion (Scottish Health Education Group (SHEG) & Scottish Consultative Council on the Curriculum (SCCC), 1990).

A Health Education Development Officer (HEDO) was appointed to work towards developing health and AIDS education within the 'traditional' (Level 1) and 'health promoting school' (Level 2) contexts. Schools were paired such that each pair comprised schools most similar to each other in terms of their socio-economic characteristics. Then, at the toss of a coin, one of the pair was randomly allocated to be a Level 1 or a Level 2 school. The outcomes were:

- Teachers' perceptions and knowledge of health and AIDS-related issues and education;
- Parents' perceptions and knowledge of school health education;
- Pupils' self-reported health behaviours; and
- Pupils' perceptions and knowledge of health and AIDS-related issues.

This work was intended to assess whether being a Level 2 or more 'health promoting' school was associated with improved outcomes, as this had never been empirically tested.

Unfortunately, the Level 1 schools developed beyond Level 1 with the consequence that all schools ended up as Level 2 schools (a detailed account of this achieved development work is available on request to the Health Promotion Unit of the Argyll and Clyde Health Board (Scott, 1993)). This probably happened for a number of reasons. For example, those involved in the intervention were committed to the belief that becoming a Level 2 school was a 'good thing' and did not feel it was ethical to discourage development for the sake of research outcomes. This belief was implicitly encouraged by other initiatives at that time in the Strathclyde Regional Council Department of Education. These included: Strathclyde Health and AIDS Project in Education (SHAPE), which integrated different health education topics across the curriculum and throughout young people's school careers (Strathclyde Regional Council Department of Education & Scottish Education Department, 1990); the promotion of the concept of the school as a caring community, emphasising the need for a whole-school approach to policy and for promoting health education throughout the curriculum (Scottish Health Education Group (SHEG) & Scottish Consultative Council on the Curriculum (SCCC), 1990); and the adoption of a 'life-skills' approach to health education, aiming to influence positively young people's attitudes and behaviour by focusing on self-esteem, self-assertiveness, decision-making and communication skills (Ryder & Campbell, 1988).

The Researcher was unable to persuade the others involved in the trial to keep the design pure for the benefits of increased knowledge. In the end, the final report assessed change before and after the HEDO's development work, which indicated that the development had achieved change across all schools in teachers' knowledge, attitudes and behaviour in a direction reflecting the 'Health Promoting School' concept (Scottish Health Education Group (SHEG) & Scottish Consultative Council on the Curriculum (SCCC), 1990). It is important to note that no data were collected on pupils' health behaviours post development work. This was because there was concern that at follow-up there would not be enough variation between schools to detect a difference, and rather than find a negative result the data would not be collected on pupils, only on teachers. The findings were also used as a 'needs assessment' to direct future health education and promotion development work. A copy of the final report is available on request to the Health Promotion Unit of the Argyll and Clyde Health Board (Henderson, Coggans, & Davies, 1993).

This thesis uses cross-sectional data collected at baseline for the project, as described above, to test whether there is a significant association between schools' health promoting activities and pupils' self-reported health behaviours. It seemed appropriate to re-analyse these data for this thesis in a way that allows the question of the original research proposal to be addressed; namely, is health promoting in schools significantly associated with pupils' health behaviours, albeit with a less robust design. An advantage of using baseline data is that the original HPS variation (pre-development work) between the schools exists and that level of variation is more likely to reflect the variation in schools generally at the time of the study.

3.2.2 Permission and consent

Permission to undertake the research was obtained from both regional and local education authorities. Eight schools were selected to reflect the range of geographical, socio-economic and denominational characteristics of schools within the Argyll and Clyde Health Board area. The schools approached all agreed to participate. One school belonged to a large town, two schools belonged to the same medium sized town, one to a small town, two to different medium sized villages; these six schools were all within 30 minutes commute of a large town. Two schools were more rural, one being an island school and the other a rural town. Two of the schools were denominational, the other six non-denominational. More information is provided on the eight schools in the next section.

In order to obtain parental consent, a letter was sent to all the parents in each year group from which a pupil could potentially be selected: the two year groups were S2, pupils aged 12 to 13 years and S4, pupils aged 14 to 15 years. An opt out form, in accordance with Strathclyde Region Department of Education guidelines, allowed parents to exclude their son/daughter from taking part in the research. Ten parents out of 1,888 S2 pupils and three parents out of 1,794 S4 pupils made this request (the achieved sample of pupils is described in section 3.3.).

3.2.3 Relative deprivation of the sample schools

The deprivation of a school's catchment area may be associated with local culture that may be related to health behaviours. Therefore, it was thought important to collect data on a number of indices of relative deprivation at the level of the whole school: these

were obtained from Strathclyde Region Education Department. Table 3-1 below shows the proportion of the total school roll with the following characteristics.

a Percentage qualifying for free school meals (i.e. pupils of parents receiving income support);

b Percentage receiving clothing grants (i.e. parents who qualified for income support with school aged children);

c Percentage drawn from social classes IV and V. (The social class indices were derived from 1991 Census data. Strathclyde Regional Council gathered the other indices: Department of Education); and

d Percentage with poor employment opportunities, derived from school destination statistics (Scottish Office, 1995) used to indicate the level of employment opportunities amongst school levers. For the purposes of this project we used 'Other known destination' and 'Training' which are defined below.

- ***Other known destinations,*** *unemployed, sick, at home looking after children or caring for the elderly, involved in full-time unpaid voluntary work or taking time out to travel; and*
- ***Training*** *included leavers who were on a training course where an allowance or grant is paid, such as Youth Training, but who are not employed.*

The destination statistics were both averaged over three years (92/93, 93/94 & 94/95) in order to balance out any unusual fluctuation for a particular year. The two averages were

then added together to generate a 'destination statistic' score. Training was included as it is often a last resort for young people, and so reflects poor alternative opportunities.

The mean of all four indices is used in analyses. This is for two main reasons. First, all four indices have strengths and weakness for representing deprivation. To qualify for school meals and clothing grants parents have to receive income support; however, other parents from social classes IV and V on low incomes may not actually receive income support, but still be relatively deprived. Second, it is inadvisable to add measures that are likely to have high multicollinearity in multivariate statistics such as regression (Hutcheson & Sofroniou, 1999). These indices are all highly correlated. For example, the Pearson's correlation coefficient for the first variable, school clothing allowance and the other variables respectively is 0.737, 0.837 & 0.833 and in all instances $p<0.05$.

Table 3-1 Relative deprivation indices of the project schools (%)

School	School Clothing allowance	Free school meals	Social classes IV or V	School leavers' destination statistic	Mean of the four deprivation indices
School 1 (Jude*)	37	28	25	36	32
School 2	7	6	16	25	13
School 3	22	16	17	37	23
School 4	48	33	37	63	45
School 5 (Seaview*)	22	13	15	27	19
School 6 (Bruce*)	36	33	28	37	34
School 7	8	5	21	24	14
School 8	15	34	17	35	25

*Later in this thesis, School 1, School 5 and School 6 are given the acronyms Jude, Seaview and Bruce respectively. To facilitate cross-referencing information provided on these schools within different sections of this thesis, both the school number and acronym are presented in this table.

3.3 Methods of evaluation

The time order of data collection is important in this study. First, semi-structured interviews were conducted by the Researcher with a range of staff and pupils from each school, at this time the Researcher also noted observations on each school. Second, the HEDO conducted an audit of HE and HP in all schools. Third, self-report questionnaire data were collected from pupils in the eight schools. Therefore, before any questionnaire data were collected teachers and pupils from each school involved in the study were interviewed. This was done to omit the possibility that the interviewer would (albeit unconsciously) lead the interviewee to present the school with better health behaviour outcomes in a favourable light or the school with highest rate of smoking in an unfavourable light.

It should be noted that in terms of reporting the results of the analyses, the quantitative data are reported first as the results of the questionnaire data were used to select three case study schools for in-depth exploration of the qualitative data. Second, the results of the audit are reported and triangulated with the results of the questionnaire data. Finally, the qualitative data are reported, in a chapter for each case study and a final chapter that compares the three schools.

Three types of data are available and enable triangulation between the different methods.

3.3.1 Qualitative semi-structured interviews

In each school a private room was provided for the Researcher to conduct interviews. The purpose of the research was briefly described to each interviewee and it was confirmed that they were willing to participate. Permission was requested to tape the interviews and confidentiality explained; no schools or participants would be named in any publications. Funding was not available for professional, verbatim transcription of the interviews, so they were transcribed by hand. In this procedure the Researcher omitted transcribing repetition of statements and asides (for instance, about the weather).

Both pupils and teachers were asked the following questions: when a question has more than one sentence or words in brackets, these subsidiary sentences / questions were used as prompts by the interviewer to elicit as full an answer to the question (theme) as possible.

1. In what ways do you think your school is successful at health promotion. Why?
2. In what ways and how do you think health promotion in your school could be improved?

Only pupils were asked the following questions.

3. How do you/would you feel about getting health education/promotion at school? What about sex/HIV/drug education? (How do your parents feel?)
4. Are there areas of health education you enjoy/do not enjoy? Why?
5. What do you think about how health/sex/drug/HIV education is taught in this school?

6. What do you think about what you have been taught? Is any of it useful to you now or in the future? What? Is there anything you haven't been taught about, but you would like to know?
7. What do you enjoy about coming to this school? What do you not enjoy about coming to this school?
8. If you had a personal/work problem would there be a teacher you could approach? What are the qualities (characteristics) of that teacher?
9. What things happen at school that make you feel good?

Only teachers were asked the following questions

10. How do you/would you feel (plus enjoy) about being asked to be involved in health education/promotion? What about sex/HIV/drug education?
11. Have any recent developments in your school organisation timetable or curriculum had an influence on your attitude to health education?
12. Do you see areas of health promotion as your personal responsibility? Which areas? Why?
13. Please can you describe the school's management ethos? Why did you answer as you did? What are the strengths of your management system? The weaknesses? How do you think it could be improved (if at all)?
14. Is there inter-departmental liaison in the area of health promotion? Whose idea was it? How was it implemented? How could it be improved? Do you think it is a good idea?
15. Have you been involved in health education/promotion? Why not? Or what did you do? What materials did you use? What did you think of them? What teaching methods did you use? What did you think of them?

16. What do you enjoy about teaching in this school? What do you not enjoy about teaching in this school?
17. What links does the school have with health agencies? Are these links helpful? Do you ensure that any outside speakers fit with the school policy on health?

The answers to all of these questions were coded according to emergent themes.

3.3.2 Researcher's observations

The Researcher made notes of observations whenever visiting a school. This included notes on the following areas: how easy or difficult it was to negotiate access to each school for data collection; quality of signposting to ease navigation around each school; the quality of the physical environment generally, including display of pupils' work, artwork and trophies; the behaviour of pupils; and friendliness and approachability of staff.

3.3.3 Audit

The audit was the only data not personally collected by the Researcher. The audit was based on the formal SHAPE curricular audit (Strathclyde Regional Council Department of Education & Scottish Education Department, 1990), but extended to include the hidden curriculum and use of health and caring services, and was implemented by the Health Education Development Officer (HEDO).

The HEDO implemented the audit with the Principal Teachers in each of the eight schools. In each school the HEDO and all the PTs who were present on that day met

together during school Planned Activity Time. The audit covered a wide range of HPS initiatives from basic preparatory activities (e.g. establishing a health education committee and nominating a co-ordinator), communication (e.g. disseminating to all staff the results of the school health audit) and action (e.g. implementing the teaching of health education for pupils). The full list is provided below at the end of this section. The HEDO read out the questions relating to the audit to the PTs and then filled in the responses provided by them.

After the session with the PTs when the audit was being scored, within each of the three sections (preparatory, communication and communication), each initiative reported by a Principal Teacher was given a score of 1 by the Researcher. Other scoring methods were explored (e.g. a score of one for any initiative under each heading), but they did not make any difference to the results of the audit in terms of the resultant ranking of the eight schools.

For each initiative the PTs were asked what aspects within the school acted as facilitator(s) or barrier(s). The purpose of this was to elucidate the most enabling and the most hindering, factors within a school setting with regard to progress towards HPS.

A possible weakness of this methodology was that it relied on the PT's own accounts in a group setting. Some PTs may have felt that the HEDO had been given enough information and stayed quiet, therefore there is a danger of it not being as comprehensive as intended. However, the project Advisory Group believed that the HEDO interviewing each PT separately in each of the 8 schools would take-up too much of the HEDO's time. Another alternative would have been to ask the PTs to

complete the audit individually, but it was thought that many of the audit forms would have been left uncompleted or taken too long to come back to be of use. Therefore the method used was viewed as the most pragmatic of the options available.

Preparatory behaviours*
Health included as a priority in the school's development plans
Appointed an AHT with a specific remit for Health
Established a health education committee and nominated a co-ordinator
Made time for regular meetings of the health education committee
Audit every department's contribution to Health Education
Health Education audited in conjunction with Associated Primary Schools. This was related to Scottish Education Department's 5-14 initiative
Undertaken a survey to assess pupils' health needs
Decided on Health Education & Promotion priorities and targets
Made a curricular plan for health education
In-service training provided for staff on HIV / AIDS
Supported the Health Committee to implement the teaching of the resource pack 'Skills for Adolescence' [Lions Club International, 1986 #88]
Given further staff training to teaching staff on health education and health promotion
Total preparatory score

Communication
Disseminated to all staff the results of the school health audit
Liaised with outside agencies in the local community
Liaised with parents with regard to health issues
Created a pupil council
Total communication score

Action
Implemented the teaching of health education for pupils
Taught HIV / AIDS education to pupils using the ESCAPE-AIDS package [Strathclyde Regional Council, Undated #87]
Improved the physical school environment
Undertaken health promotion initiatives for pupils
Undertaken health promotion initiatives for teaching staff
Ran a parents' workshop on HIV / AIDS
Collaborated with outside agencies in the local community
Developed a positive statement of the school's code of conduct
Total action score

3.3.4 Quantitative questionnaires

The questionnaires were piloted in two schools within the Argyll and Clyde Health Board Area. After completion of questionnaires the Researcher spoke with pupils about their views of the questionnaire and explored what they understood by the questions. In addition, logic checks were used to establish whether pupils understood routing questions. Spread of responses to questions was examined, those with a ceiling effect (most giving the same response) being excluded from the final questionnaire.

Pupils completed individual, anonymous, self-completion questionnaires (see appendix 1) providing data on health behaviours and predictors of these behaviours. Questionnaires were administered under 'examination' conditions. Teachers were asked to leave the room. The Researcher explained the study, answered questions and gave pupils the option not to participate. If respondents requested clarification of questions this was done in a standardised way. During development of the questionnaire, advice was sought from learning support teachers in order to facilitate comprehension across

the ability range. The aggregated information collected was subsequently useful for schools (each school received feedback) and policy makers, as it identified pupil needs.

3.3.4.1 Definitions and coding of variables

The variables used in quantitative analysis were; sex, year at school, social class, family structure, parental health behaviour and pupils' health behaviour. Definitions and coding of the variables are presented below.

3.3.4.1.1 Sex

'Female', was given the code 1 and 'Male' code 0 (the reference category). This information was entered as categorical data into the logistic regressions.

3.3.4.1.2 Year at school

There were minor variations between the S2 and S4 questionnaires (see Appendix 1), such that additional questions were asked of the older pupils. As a result, the questionnaires had school year clearly printed on their covers and each year group was administered the appropriate questionnaire. The data for year at school was assigned according to the information on the questionnaire covers. The data on the database was coded dichotomously. Pupils in S2 were allocated the code 0 (the reference category) and pupils in S4 were allocated the code 1. This information was entered as categorical data into the logistic regressions.

3.3.4.1.3 Social Class

The pupil questionnaire had two questions designed to elicit information about the occupation of the parent(s) or guardian(s) living with each pupil. The version of these questions for a male parent or guardian is described in detail below. The version for female parent or guardian substitutes 'Mother, Stepmother or female Guardian' for the male version, but otherwise is the same.

1. 'If he lives at home with you, what sort of job does your Father, Stepfather or male Guardian have? If he does not have a job please write, 'none'.
2. Please describe what your Father, Stepfather or male Guardian normally does at work. If he does not have a job just now, please describe what he did when he was last working.

Pupils' identification numbers and answers to occupational questions (keyed verbatim) were outputted to an ASCII (text only) file and coded by reference to the software package 'Computer Assisted Standard Occupational Coding' (CASOC) (Elias, Halstead, & Prandy, 1993). In the United Kingdom, a new set of occupational categories, the Standard Occupational Classification (SOC) was introduced in 1990 and is used by the CASOC software. This classification now covers the main official sources of occupational information: the Labour Force Survey, New Earnings Survey, the 1991 Census of Population, Family Expenditure Survey (which was appropriate for the time when the data were collected, although CASOC has evolved and has been updated to the 2001 Census) and the recording of job vacancies by the Employment Service.

The CASOC software provided the framework of coding rules and was particularly useful when dealing with low quality occupational information. When classification was not obvious, the programme provided information on possible alternative categories (ancillary information) which required closer manual inspection of the verbatim occupational description and ancillary information. Using an automated procedure such as CASOC compared with a case by case manual method leads to significant gains in validity and reliability (Elias, Halstead, & Prandy, 1993). Coding replication rates between different coders can be in the region of 90 – 95% (Elias, Halstead, & Prandy, 1993).

From these data, two SOC variables were generated, one relating to fathers' occupations and the other to mothers' occupations. The variables were merged into the SPSS data file using pupils' identification numbers as the 'key' variable for data linkage. The SOC variables were linkied to the Registrar General's classification scheme, which provided the following six categories.

I Professional

II Managerial / Technical

IIIa Skilled non-manual

IIIb Skilled manual

IV Partly skilled

V Unskilled

Since 25% of pupils did not live with both parents (therefore having missing data on occupational category for either their father or mother) and in addition, some of the

occupational categories involved low numbers, the two variables, were combined into a (three category) 'Head of Household Social Class' measure, using father's occupation when known and mother's occupation when the father's was unknown. This strategy minimised the number of pupils with missing data. Even so, 42 pupils (10%) have missing data. As it is not desirable to have more than 10% of the pupils excluded from all analysis because of missing data (SPSS defaults to listwise deletion in all analyses), missing data were treated as a separate category and included in analysis.

The resulting variable for 'Head of Household' therefore involved three occupational categories I & II (e.g. professional/managerial), categories IIIa & IIIb (e.g. skilled) and occupational categories IV & V (e.g. partly skilled/unskilled) plus the missing category. The rationale for using three values rather than two (normally manual & non-manual) is that it enables greater equivalence in occupational categories between sexes, overcoming the problem that many skilled jobs undertaken by women are coded IIIa (skilled non-manual), whereas skilled jobs undertaken by men are often categorised as IIIb (skilled manual).

3.3.4.1.4 Family structure

Pupils were asked:

Who lives with you at home?

The pupils were then given the following options: Mother only; Father only; Mother and Father; Mother and Stepfather; Father and Stepmother; Female Guardian; Male Guardian; Female and male Guardians; and Other (please write in whom you live with at home).

For the purposes of this analysis they were recoded into:

1. living with a lone parent (either Mother only or Father only) - coded 1;
2. living with one parent plus a step parent (either Mother and Stepfather or Father and Stepmother) - coded 2; and
3. living with both parents - coded 0 (the reference category).

3.3.4.1.5 Parental health behaviours

The pupils' questionnaire had a question designed to elicit information about whether parents engaged in similar behaviours. While it is acknowledged that there is limited evidence on the accuracy of children's reports of their parents' health behaviours, the evidence that does exist for parents' smoking suggests that pupils' reports are very accurate. As part of the West of Scotland Twenty-07 Study: Health in the Community (Macintyre, Annandale, Ecob et al., 1989), at age 15 the youngest cohort were asked about their parents' smoking, while the parents were asked directly about their smoking. A comparison between the two sets of reports showed the level of agreement was very high for reports relating to both mothers' and fathers' smoking (Kappa 0.95 for mothers and Kappa 0.88 for fathers) (West, Sweeting, & Ecob, 1999). While this evidence relates directly to smoking, to the Researcher's knowledge, there is no evidence to suggest that pupils' reports of other parental health behaviours would be less accurate. Nonetheless, there are two issues to consider about other parental health behaviours such as drug use, which may be more sensitive due to its illegal nature. First, pupils may be more reticent about reporting their parents' drug use. Second, parents may hide their drug use from their children and therefore there is a chance of under-reporting. To

address the first issue, the data for this study were collected anonymously, no names to be written on the questionnaire, and that is likely to have reassured the pupils with respect to reporting their parents' drug use. Furthermore, pupils had been told that completing individual questions within the questionnaire was voluntary and they could be left blank, therefore, there was no pressure on pupils to complete this question and, more importantly, no need to make an inaccurate response. In fact, the rates of missing data for drug use are much in line with missing data for the other items on the questionnaire such as parental smoking (See Chapter 4, Table 4-4, page 88). With regard to the second issue, if pupils are influenced by their parents' drug use they presumably have to be aware of it, so it is likely that pupils unaware of their parents' drug use will be more similar to pupils' whose parents do not use drugs in which case their response, in terms of reflecting parental influence on the pupils' drug use, would be appropriate for the purposes of adjustment in statistical modelling.

The version of the questions for a male parental figure's health behaviours is described in detail below, with an equivalent for female parental figure. The pupils were asked to tick the appropriate response to the following questions (see Appendix 1, question 36).

Below is a list of some people you know. For each one can you say whether he/she smokes, drinks alcohol, takes physical exercise (sport) regularly or takes soft drugs (e.g. cannabis) or hard drugs (e.g. heroin). Please tick appropriate box.

Father/Stepfather/male Guardian – if he lives at home with you

	Regularly	Occasionally	Never	Don't know (?)	Used to/ ex user
Smokes	❒	❒	❒	❒	❒
Drinks	❒	❒	❒	❒	❒
Exercise	❒	❒	❒	❒	❒
Soft drugs	❒	❒	❒	❒	❒
Hard drugs	❒	❒	❒	❒	❒

The data were recoded such that: Regularly = 1; Occasionally = 1; Don't know = system missing; Missing data = system missing; Never = 0; and Used to/ex = 0

Then the recoded variables created for both Mothers' and Fathers' were summed for each health behaviour. The resulting variable was recoded into three categories: neither parent (coded 0, reference category), at least one parent (coded 1) and no useable information (system missing).

3.3.4.1.6 Health Behaviour

Decisions about the coding of the health-related-behaviours were made in line with criteria adopted by other researchers in the field. The original questions can be seen in the questionnaire in Appendix 1 (questions 16 to 29). Smoking distinguishes between 'current smokers' and 'non smokers,' the former including regular and occasional smokers, not those that had tried smoking once or twice nor ex-smokers. For alcohol consumption, weekly (or more regular drinkers) were compared with the rest.

With regard to drugs, it was decided to combine the different drugs pupils reported into a single drug use (ever) variable. This decision was made as all the schools in the study reported making use of the teaching pack 'Drugwise 12-14' (Strathclyde Regional

Council Department of Education & Scottish Consultative Council on the Curriculum, 1988) which covered a wide variety of drugs rather than, for instance, solely educating about cannabis. Furthermore, the levels of drug use were low and more power is achieved by combining the drugs.

A dummy drug, 'Astrolite (sky, trolls) was included in list of drugs asked in the questionnaire. The intention underlying this was to exclude from analysis pupils who claimed to have used a drug that did not exist.

Finally, in respect of physical activity, pupils were asked, 'How many days of the week do you do sport (or physical activity) that makes you out of breath and sweaty for more than 20 minutes?' Those who answered 3 days or more were coded as undertaking the 'American College of Sports Medicine recommended level of physical activity' (American College of Sports Medicine, 1990).

3.3.5 Study participants

3.3.5.1 Pupils

There were 1,888 S2 (aged 12 – 13) and 1,794 S4 (aged 15 – 16) pupils within the eight schools. As this was too many pupils to survey both in terms of time and cost for this study, it was decided to sample pupils within schools. In each school a minimum of 12 girls and 12 boys from S4 (aged 14 / 15) and 12 girls and 12 boys from S2 (aged 12 / 13), participated in the study, just over 10% of pupils of both in both S2 & S4 in each school. Pupils in each school were selected from alphabetically based registration classes, using random numbers. Confirmation that the sample was representative of the

range of ability and behaviour in each year group was elicited from the health education co-ordinator in each school.

The achieved sample involved 446 pupils who completed questionnaires. This comprised:

- 124 S2 males (aged 12-13 years)
- 100 S4 males (aged 15-16 years)
- 115 S2 females (aged 12-13 years)
- 107 S4 females (aged 15-16 years)

The difference in numbers between years and sexes is not statistically significant.

Some of the random sample of S4 pupils who completed the questionnaires had taken part in semi-structured qualitative interview conducted prior to questionnaire completion. The Researcher conducted 96 one-to-one interviews with pupils from S4, which included 6 male and 6 female pupils from each school randomly selected from alphabetical registration lists. Each interview comprised a set of questions to which the pupils could provide open-ended responses (the interview schedule can be seen above).

3.3.5.2 Teachers

In order to address whole-school issues, it was important to include as many designations of staff and curricular areas as possible. To start with in each school the Head Teacher was invited to and participated in an interview. This was thought important as Head Teachers have such a critical role in schools. Rather than randomly

sampling staff across the whole of a school's staff list and risk not representing some designations well, it was decided to randomly select teachers from each of three groups: Senior Management (3 randomly selected, plus the Head Teacher), Principal Teachers (4 selected) and Classroom Teachers (4 selected). Only one member of staff refused to be interviewed (a member of Senior Management from School 1 (Jude)).

The Researcher conducted 87 one-to-one teacher interviews. This comprised 29 senior manager team members (SMT), including Head Teachers, Deputy Head Teachers and Assistant Head Teachers; 29 principal teachers (PTs) and 29 teachers (throughout this report teachers or Ts are non-promoted classroom teachers) representing a range of subject backgrounds and experience in health/AIDS education. As described above, each interview comprised a set of questions to which the teachers could give open-ended responses.

3.3.6 Analysis

3.3.6.1 Qualitative

After the Researcher was trained in NVivo version 1.2, the MRC Social and Public Health Sciences Unit, allowed secretarial support to type the Researcher's hand transcribed notes in order that they could be transferred into Nvivo for analysis.

NVivo is a computer-based programme designed for coding and analysing qualitative data. The package allows the Researcher to keep an audit trail of the analysis process, encourages thinking ahead about how to approach the analysis and allows coding and analysis to be transparent and easily checked. However, as this is good practice for any

qualitative research whatever method is used for analysis, there appear to be two main advantages of NVivo over 'paper and pencil' approaches. Firstly, it is easy to recode the data in the event of refinement later on in the analysis. Secondly, the package enables the Researcher to 'slice the cake in another way' (i.e. easily compare differing groups of interviewees with different attributes).

NVivo works with three databases. The first database is the Document System. Before text files are imported into NVivo they need to be saved in Word's 'rich text format'. Further, before files are imported, all the questions asked by the interviewer are transformed into Word's 'Heading level 1' in order that they can become Nodes (i.e. themes for analysis) within NVivo. Once a file is imported it can be viewed and coded within NVivo. The second database is the Attributes System which manages the attributes of the documents' nodes. In this project, each document & node was linked to the interviewee's school, subject group (i.e. pupil, classroom teacher, principal teacher, or member of senior management team) and for pupils only, sex. Finally, the third database is the Index System which manages the Researcher's ideas about their documents. In this study, as the interviews were semi-structured, the questions themselves were programmed as themes / nodes while further thematic codes were generated to reflect the range of answers given to the questions. For instance, information was coded about different relationships within the school, pupil-pupil (within this there were topics on bullying, peer-pressure, behaviour and peers attitude to learning), teacher-teacher, teacher-pupil and teacher-SMT. Comments on the physical environment of the school were coded. Within the theme of ethos, cross-curricular liaison, time constraints, paper work, personal and school priorities, discipline, hidden curriculum and leadership were coded.

The Introduction argued that the Health Promoting School (HPS) concept provides a useful framework by which to detect school processes that may be related to health outcomes. Accordingly, the data are used to illuminate the main themes of the HPS. The framework has been split into two main components, health education (HE) / health promotion (HP) and ethos. The former covers both policy and practice, while the latter not only explores relationships between groups within the school, but also discipline and physical environment, as these can affect relationships and morale.

3.3.6.2 Quantitative questionnaire data

The quantitative data were analysed within the Statistical Package for Social Sciences (SPSS) version 9. Data cleaning preceded any analysis and involved inspecting items with standard errors + or – 2.5 and when logic checks revealed inconsistent answers. Questionnaires were automatically excluded if pupils claimed to have used the fake drug (Astrolite), when pupils reported regular use of all the drugs listed in the questionnaire and if over 30% of their questionnaire answers were missing. The data cleaning resulted in the elimination of 13 questionnaires. All subsequent analyses were carried out on the 433 remaining pupils. When there was question specific missing data, it was dummy coded in order that the individual was retained in the analysis.

After data cleaning, summary statistics and univariate analyses were produced for the outcomes (smoking, drinking, drug use and physical activity) and their predictors. Then multivariate analyses were conducted in order to determine the presence / absence of 'school effects'. As the main outcomes were binary, the logistic regression procedure

was used. The Researcher is interested in individual characteristics of schools, therefore fixed effects are appropriate (discussed in Chapter 2): this is a first generation study of 'school effects' on pupils' health behaviours; however, this is an exploratory study in this area, the particular strength of which lies in the ability to triangulate data from different sources, this is an appropriate approach.

3.3.6.3 Audit

The audit is presented in Chapter 5 in three sections, preparatory behaviours, communication and action. Within each of these sections, each initiative reported by a Principal Teacher was given a score of 1. Other scoring methods were explored, but they did not make any difference to the results of the audit in terms of the resultant ranking of the eight schools. The audit also explored facilitators and barriers to the possible initiatives.

3.3.6.4 Analytic strategy

The quantitative questionnaire data, audit and qualitative data generated a rich database. The quantitative data addresses the first aim of the study, whether 'school effects' exist and in addition provides the means by which three case study schools were selected. These were the schools with the lowest and highest odds for smoking after adjustment for known predictors of the health behaviours together with a third school significantly different from the school with lowest smoking and located in the same town, as this eased interpretation of the results.

Both the audit and semi-structured interviews provide evidence that addresses the second aim of the study, each data source enabling an assessment of how closely the schools approximate the HPS. Based on the principle of triangulation this allows the integration of quantitative and qualitative data in six ways. First, it examines whether the rank order of schools for pupils' health behaviours (reported in self-completion questionnaires) is associated with the extent to which schools were active in HE and HP (as reported in a school audit). Second, the audit results of the three case study schools are compared with the information provided in semi-structured interviews in order to assess the extent to which a shared reality is being described. Third, an assessment is made on whether the qualitative information on the case study schools triangulates with the HPS concept as predicted: theoretically, more positive outcomes should be associated with a closer approximation to HPS. Fourth, the consistency of qualitative information provided by interviewees within each school is assessed as evidence of quality of communication. Fifth, interview data pertaining to policy and practice within each school is compared to assess the extent to which there is evidence of a gap between policy and practice. Sixth, the Researcher's observations are compared with the qualitative information to evaluate fit.

The next chapter explores the results of the quantitative questionnaire data from pupils.

4 Pupils' self-reported health behaviours

The key purpose of this chapter is to establish whether 'school effects' exist for any of the health behaviours in this sample of schools. The health behaviours explored are current smoking, weekly drinking, ever tried illegal drugs and adequate levels of physical activity, based on American College of Sports Medicine (ACSM) definition (American College of Sports Medicine, 1990). Prior to the multivariate 'school effects' analysis, there are two stages; first, to provide descriptive information and second, to present the univariate results.

This analysis is based on data from 433 pupils retained after the data cleaning procedures (described in the Methodology Chapter).

4.1 Descriptive information

This section describes pupils' socio-economic status, family structure, parental health behaviours, pupils' health behaviours and how these vary by school.

4.1.1 Socio-economic status, family structure and parental health behaviours

Table 4-1 presents the distributions of socio-economic status, family structure and parental health behaviours for pupils in S2 (aged 12/13) and S4 (aged 14/15).

Compared with 1991 census data, this sample (shown in Table 4-1) had more pupils from lower socio-economic backgrounds than occurred in the population of young people living in Scotland. If, in this sample, any of the outcomes are associated with

lower social class, then we would expect the prevalence rates of these outcomes to be higher than reported in the literature with more representative samples.

The distributions of socio-economic status, family structure and parental behaviours were very similar for both age groups with two exceptions, parental drinking and parental physical activity. More parents of S4 pupils drank (36%) than S2 pupils (20%), while parents of S2 pupils were more physically active (37%) than S4 parents (30%). This may be explained by the maturation of pupils between S2 and S4. As children mature they increasingly spend their recreation time with their friends rather than their family, and this may mean that parents have more time to get out for a drink, and may not be so involved in physical activity with their children. It may also be the case that S4 pupils were more aware of their parents' drinking. Almost half of the pupils' parents belonged to social class IIIa or IIIb, the rest being fairly evenly split between I or II and IV or V, though slightly more belonged to the lower social classes (IV or V). The majority (around three-quarters) of pupils lived with both parents, 16% with a lone parent and 7% with one parent and a step-parent. Only 1.5% lived with neither parent. In terms of parental health behaviours (drinking and physical activity described above) just under three-fifths of parents smoked, while 7-8% reported that their parents currently used drugs.

Table 4-1 Socio-economic status, family structure and parental behaviours

	S2 pupils aged 12 / 13 (N=231)		S4 pupils aged 14 / 15 (N=202)	
	N	(%)	N	(%)
Social Class				
I or II	52	(25.4)	38	(20.4)
IIIa or IIIb	101	(49.2)	91	(48.9)
IV or V	52	(25.4)	57	(30.6)
Missing (not answered or uncodable)	26		16	
Family structure				
Both parents	175	(77.1)	151	(75.1)
One parent & step parent	16	(7.0)	14	(7.0)
Lone parent	36	(15.9)	33	(16.4)
Neither parent	0	(0.0)	3	(1.5)
Missing (not answered)	4		1	
Parental smoking				
Did not live with a parent who currently smokes	94	(44.1)	84	(42.9)
Lived with at least one parent who currently smokes	119	(55.9)	112	(57.1)
Missing (not answered or 'don't know')	18		6	
Parental drinking				
Did not live with a parent who regularly drinks alcohol	170	(79.8)	126	(63.6)
Lived with at least one parent who regularly drinks alcohol	43	(20.2)	72	(36.4)
Missing (not answered or 'don't know')	18		4	
Parental drug use				
Did not live with a parent who currently uses drugs	207	(92)	183	(93.4)
Lived with at least one parent who currently uses drugs	18	(8.0)	13	(6.6)
Missing (not answered or 'don't know')	6		6	
Parental physical activity				
Did not live with a parent who *regularly* takes exercise	133	(63.3)	137	(69.5)
Lived with at least one parent who *regularly* takes exercise	77	(36.7)	60	(30.5)
Missing (not answered or 'don't know')	21		5	

4.1.2 Pupils' health behaviours

Across all schools, the percentage of pupils who reported each outcome was as follows: smoking 19%; drinking 18%, illegal drug-use 27%; and, physical activity 63%. The

Methodology Chapter described that information on pupil drug use was combined into one measure, ever tried drugs. However, as this does not indicate the prevalence of individual drugs, this is provided below.

4.1.2.1 Drug use

The prevalence of individual drugs and the combined variable of 'ever tried drugs' are shown in Table 4-2. The percentages of pupils who reported regular use of any drug are extremely low. For example, the highest percentage of regular users was for cannabis, but even so only 2.8% reported that to be the case. Most drug use was reported to be occasional or past use, the most commonly 'ever tried' being cannabis (24.6%). Lower percentages of pupils reported ever trying magic mushrooms (20%), LSD (19%), amphetamines (17%), temazepam (17%) and sniffing glues (15%). Less than 2% of pupils reported ever trying heroin, codeine linctus, morphine sulphate, diconal or DF118. The levels of drug use are similar to those found in the National Evaluation of Drug Education (Coggans et al, 1991), the data for both studies having been collected within Scotland and within two years of each other.

Table 4-2 Prevalence of pupils' drug use (%)

N=433	Regular users	Occasional users	Used in the past only	Never taken	Missing data*	'Ever tried'
Cannabis (dope, hash, grass, blow, marijuana)	2.8	13.0	8.8	63.2	12.2	24.6
Magic Mushrooms (mushies)	0.9	6.9	9.0	68.1	15.0	16.8
LSD (acid)	1.2	7.8	7.4	69.5	14.3	16.2
Amphetamines (speed)	1.2	6.9	6.5	69.7	15.7	14.6
Temazepam (eggs, jellies)	0.7	6.5	7.9	69.5	15.9	14.6
Glues, solvents, dry-cleaning fluids, fuels or gas	0.5	2.3	9.7	72.3	15.2	12.5
Valium	0.2	2.5	4.6	76.7	15.9	7.3
Ecstacy (eccies, E, X)	0.7	1.6	2.8	79.9	15.0	5.1
Upjohns	1.4	2.8	0	78.5	17.3	4.2
Temgesic (tems)	0.2	0.9	2.3	79.9	16.6	3.4
Codeine Linctus	0	0	1.2	79.9	18.9	1.2
Heroin (smack)	0.2	0.7	0.2	83.4	15.5	1.1
Morphine Sulphate	0	0.2	0.5	81.3	18.5	0.7
Diconal	0.2	0.2	0.5	80.6	18.0	0.9
DF118	0.2	0.2	0.5	80.4	18.7	0.9
Every tried 'any' drug*				61.3	11.8*	26.9*

* Missing data on 'any' drug is lower than for individual drugs because an affirmative answer to any individual drug is counted as experience of any.

4.1.3 School and health behaviours

Table 4-3 shows the raw, unadjusted rates of the self-reported health-related-behaviours by school. The three named schools (Bruce, Seaview & Jude) are case study schools, and their selection is discussed later in this chapter. The order of the schools as presented in each of the tables in this chapter reflects their increasing smoking rates. As such, Bruce has the lowest smoking rate, while Jude and Seaview have the highest rates: the purpose of this order is to facilitate the identification of patterns in the data.

Of all the outcomes shown in Table 4-3, smoking exhibited the largest range of rates between schools (Bruce had the lowest rate 8% and Seaview the highest 34%). Seaview had the highest rates of three out of the four outcomes: smoking (34%), drinking (33%) and, interestingly, physical activity (79%), while Jude had the highest rate of drug-use (37%). A different school had the lowest rate for each of the health behaviours: Bruce for current smoking (8%), Jude for drinking (10%), School 2 for drug-use (17.1%); and finally, School 3 for physical activity (56%).

Table 4-3 School and self-reported health behaviours

	Current smoking[1]		Weekly drinking		Ever tried drugs		Physical activity	
	n with data	%	n with data	%	n with data	%	n with data	%
Mean %		19.4		17.9		26.9		63.0
Bruce	50	8.0	50	12.0	46	30.4	50	56.0
School 4	53	11.3	51	11.8	45	35.6	53	60.4
School 8	46	13.0	43	20.9	42	24.2	46	65.2
School 2	66	19.7	65	20.0	56	17.5	66	65.2
School 3	70	21.4	69	11.6	64	21.5	70	55.7
School 7	50	22.0	50	24.0	41	17.1	51	58.8
Jude	50	26.0	49	10.2	46	37.0	50	64.0
Seaview	47	34.0	46	32.6	42	26.2	47	78.7

1 Six pupils had ticked, 'don't know' to the first question about smoking, but had ticked, 'Don't smoke' in two subsequent questions, these pupils were included in the analyses as non-smokers.
One pupil had missing data on all of the smoking questions. That pupil's data was not included in any of the subsequent analyses of smoking data.

4.1.4 School and family characteristics

The socio-demographic, family and parental characteristics have already been described for the whole sample by year at school. However, as the focus was on 'school effects', it is interesting to see how these predictors of health behaviours varied by school. Table 4-4 shows the distributions.

As expected, the sex and year at school distributions were similar between schools and near 50% for most schools, except School 2 where there was a higher proportion of boys than girls (this was down to chance in the selection of classes surveyed). The proportion of parents from social classes I or II varied from 11% in School 4 to 32% in School 2. There was less variation between schools for social classes IIIa or IIIb, which ranged from 38% in Bruce to 52% in School 8. For social classes IV or V the schools differed from 15% in School 8 to 40% in School 4. The highest percentage of pupils living with both parents was 87% for School 8, while school 4 had the lowest proportion at 62%. School 2 and School 8 were the first and second most affluent schools and were also the two schools with the highest and second highest percentage of pupils living with both parents. Conversely, School 4 was the most deprived school and had least pupils living with both parents. This suggests an association between family structure and deprivation.

The lowest rate of parental smoking was 47% for School 2, while the highest rate was 67% for School 8. Parental drinking was lowest for Bruce (20%) and highest for School 4 (34%). Seaview had the lowest parental drug use (0%), while School 4 had the highest rate (13%). School 4 was the most deprived school, and it is interesting that it had the highest rates of parental drinking and drug use and was close second to highest for smoking. School 2, the most affluent school, had the lowest parental smoking rates and was close second lowest for parental drinking and drug use. This suggests an association between social class and parental health behaviours. School 3 had the highest proportion of missing data for parental smoking and drug use and had one of the higher rates for parental drinking. The Researcher had noted a pupil in one of the classes objecting to being asked about their parents' health behaviours. The Researcher explained why it

was considered important, but re-iterated that the pupils could choose to leave individual questions blank. It is possible that the pupil's objection polarised other pupils' opinion and resulted in an increase of missing data for School 3. There is no such clear pattern for parental physical activity and a less marked difference between schools. The lowest rate of activity was 26% for Bruce and the highest was 34% for School 4, Jude and Seaview. Most schools had around a third of parents physically active.

Table 4-4 Predictors of health behaviours by school

	School (%)							
	Bruce	**4**	**8**	**2**	**3**	**7**	**Jude**	**Seaview**
Sex								
Male	48.0	47.2	45.7	63.6	47.1	43.1	46.0	48.9
Female	52.0	52.8	54.3	36.4	52.9	56.9	54.0	51.1
Year at school								
S2 (age 12/13)	54.0	49.1	56.5	57.6	58.6	49.1	48.0	51.1
S4 (age 14/15)	46.0	50.9	43.5	42.2	41.1	51.0	52.0	48.9
Parents' social class								
I or II	14.0	11.3	28.3	31.8	25.7	19.6	16.0	14.9
IIIa or IIIb	38.0	41.5	52.2	42.4	50.0	39.2	42.0	48.9
IV or V	36.0	39.6	15.2	19.7	17.1	23.5	28.0	25.5
Missing (not answered or uncodable)†	12.0	7.5	4.3	6.1	7.1	17.6	14.0	10.6
Family structure								
Both	69.4	62.3	86.7	86.2	75.7	74.5	72.9	80.9
One parent plus step-parent	6.1	7.5	2.2	9.2	5.7	13.7	6.3	4.3
Lone parent	24.5	30.2	8.9	4.6	17.1	11.8	18.8	14.9
Parental smoking								
Neither parent	42.0	32.1	28.3	48.5	42.9	49.0	36.0	46.8
At least one parent	50.0	66.0	67.4	47.0	47.1	49.0	58.0	46.8
Missing	8.0	1.9	4.3	4.5	10.0	2.0	6.0	6.4
Parental drinking								
Neither parent	76.0	62.3	65.2	74.2	65.7	78.4	62.0	61.7
At least one parent	20.0	34.0	30.4	21.2	28.6	17.6	32.0	29.8
Missing	4.0	3.8	4.3	4.5	5.7	3.9	6.0	8.5
Parental drug use								
Neither parent	88.0	83.0	95.7	95.5	82.9	92.2	88.0	97.7
At least one parent	10.0	13.2	4.3	1.5	8.5	7.8	12.0	0
Missing	2.0	3.8	0	3.0	8.6	0	0	2.1
Parental physical activity								
Neither parent	72.0	60.4	67.4	62.1	62.9	64.7	52.0	57.4
At least one parent	26.0	34.0	28.3	33.3	30.0	33.3	34.0	34.0
Missing	2.0	5.7	4.3	4.5	7.1	2.0	14.0	8.5

4.2 Univariate results

This section starts by describing the pupils' health behaviours by sex and by year group. The chapter then shows how the predictors, namely, social class, family structure and living with parents reported to engage in similar behaviours, are related to the pupils' health behaviours using cross-tabulation and univariate logistic region.

4.2.1 Sex and age

Table 4-5 shows that physical activity differs from the other health behaviours in that there was no notable difference in activity levels (for both sexes) by age. In both year groups, 75% of males compared with just over 50% of females were physically active. As expected, there was a clear pattern for smoking, alcohol consumption and drug use to increase with age. The lowest rate of increase (10%) was for female alcohol consumption - by comparison the highest increase (33%) was for female drug use. Despite this general pattern, from which only physical activity was exempt, each of the other three health-related-behaviours exhibited particular patterns by sex. First, with respect to smoking, while there were similar rates between the sexes in S2 (12% for males versus 9% for females), in S4 36% of the girls reported smoking compared with 23% of the boys. Therefore, the increase with age was much greater for females. Second, for alcohol consumption, there were similar rates of drinking between the sexes in both year groups, with rates almost doubling with age (13% to 24% for males and 12% to 22% for females). Third, for drug use, males had much higher levels than females in S2 (19% versus 5%), yet in S4 both sexes had similar levels of drug use

(41% for males and 39% for females). As with smoking, the increase with age was much higher for females.

Table 4-5 School year group, sex and self-reported health behaviours

	S2 (AGED 12 / 13)			S4 (AGED 14 / 15)				
	n	% of n	p-value	n	% of n	p-value	p-value	p-value
ALL in sample (N)	231			202				
Males (n)	117			96				
Females (n)	114			106				
***Current* smokers**								
Males	117	12.0		96	22.9			
Females	113	8.8	0.44†	106	35.8	0.046†	0.036††	0.000†††
***Weekly* consumption of alcohol**								
Males	115	13.0		95	24.2			
Females	108	12.0	0.82†	105	21.9	0.70†	0.039††	0.058†††
Ever tried drugs								
Males	105	19.0		87	41.4			
Females	94	6.1	0.061†	96	38.5	0.70†	0.009††	0.000†††
Physical activity								
Males	117	73.5		96	74.0			
Females	114	52.6	0.001†	106	50.9	0.000†	0.94††	0.80†††

† Comparing males and females within the same year group
†† Comparing S2 and S4 males
††† Comparing S2 and S4 females

4.2.2 Social class

Table 4-6 shows the relationship between the health behaviours and social class of head of household (HOH). The major pattern was that use of all the health-behaviours was lower for pupils in social class I or II (professional / managerial / technical occupations). The exception was for females from social class IIIa or IIIb (skilled occupations); their weekly consumption of alcohol (11%) was lower than that of females from any other social class category. It is clear that social class had a greater effect on some health behaviours than others. The pattern also varied by sex.

Table 4-6 Social class of 'Head of Household' and self-reported health behaviours

	Males				Females			
	n	% of n	p-value†	p-value††	n	% of n	p-value†	p-value††
Current smokers								
I or II	42	7.1			48	10.4		
IIIa or IIIb	91	18.7	0.16†	0.096	101	17.8	0.000†	0.248
IV or V	54	18.5		0.119	55	43.6		0.001
Missing	26	23.1		0.073	15	6.7		0.668
Weekly consumption of alcohol								
I or II	42	9.5			45	20.0		
IIIa or IIIb	90	21.1	0.26†	0.111	98	11.2		0.165
IV or V	52	19.2		0.197	55	23.6	0.53†	0.663
Missing	26	19.2		0.259	15	20.0		1.0
Ever tried drugs								
I or II	36	13.9			44	18.2		
IIIa or IIIb	83	31.3	0.36†	0.053	83	21.7	0.19†	0.642
IV or V	49	24.5		0.223	51	29.4		0.203
Missing	24	54.2		0.002	12	8.3		0.423
Physical activity								
I or II	42	76.2			48	60.4		
IIIa or IIIb	91	73.6	0.67†	0.753	101	51.5	0.26†	0.307
IV or V	54	72.2		0.661	55	49.1		0.251
Missing occ. Classification	26	73.1		0.773	16	37.5		0.116

† Test for trend (those with missing data were excluded from this analysis)
†† Compared with I or II (those with missing data included)

For males, the smoking rate more than doubled from 7% in social class I or II, to 19% for the other social classes. A very similar pattern occurred for females, smoking increased from 10% in social class I or II, to 18% in class IIIa or IIIb and almost quadrupled for class IV or V (partially and unskilled occupations). Thus, while the social class effect was evident in smoking for both sexes, it appeared to be more marked for females. Second, considering consumption of alcohol, 10% of males from social class I or II drank, the rate doubling for the other classes. No such relationship existed for females. Third, with respect to drugs, males from social class I or II had a rate of 14%, which increased to 31% and 24% for classes IIIa or IIIb and IV or V respectively. The social class I or II rate for females was 18%, only increasing to 22% in class IIIa or IIIb, but to 29% in class IV or V. Male physical activity rates were highest for those in

class I or II (76%), decreasing to 74%, 72% and 73% for classes IIIa or IIIb, IV or V and missing social class respectively. For females, physical activity was also highest for class I or II (60%), but dropped more steeply than for males; 51%, 49% and 37% for classes IIIa or IIIb, IV or V and missing social class respectively.

Despite the large percentage differences, due to low power, statistical significance in terms of test for trend p-values was detected only for one result: that is, for smoking among female pupils. When logistic regression was used to compare class I or II with the other categories, only the difference between class I or II and class IV or V was significant, this was expected as the difference between these groups was marked in terms of percentage that smoked (10% versus 44%). Due to test for trend excluding those with missing data for social class (because it was not clear where the missing data would sit in the ordinal social class scale), analysis comparing class I or II with the other categories including the missing categories was conducted. The only other significant result detected was for males reporting to have tried drugs between those with missing social classification compared to class I or II.

Due to the consistent descriptive pattern, an adjustment will still be made for social class in the final multivariate model.

4.2.3 Family structure

Table 4-7 shows the relationships between family structure and health-related-behaviours. For both smoking and drug-use the lowest rates occurred for both sexes when they lived with both parents. By comparison, those who lived with a lone parent

had elevated rates of smoking (22% for males' and 32% for females') and drug-use (46% for males and 33% for females). Females who lived in step-families had similar rates to females who lived with lone parents (32% for smoking and 28% for drug-use). Particularly striking were the elevated rates for males in a stepfamily (46% for smoking and 55% for drug-use). For alcohol, there did not appear to be any association with family structure. Finally, focusing on physical activity, both sexes were least physically active when they lived in step-families (55% for males and 37% for females), 60% were active when they lived with a lone parent (the highest rate of physical activity for females). Males had notably higher rates of physical activity when they lived with both parents (78%).

Table 4-7 Family structure and self-reported health behaviours

	Males			Females		
	n	% of n	p-value	n	% of n	p-value
Current smokers						
Both	171	12.9		155	18.1	
One parent plus step-parent	11	45.5	0.012††	19	31.6	0.22††
Lone parent	27	22.2	0.230††	41	31.7	0.059†
Weekly consumption of alcohol						
Both	169	17.8		148	16.2	
One parent plus step-parent	11	18.2	1.0††	19	15.8	1.0††
Lone parent	26	15.4	1.0††	42	19.0	0.67†
Ever tried drugs						
Both	153	22.9		135	19.3	
One parent plus step-parent	11	54.5	0.029††	18	27.8	0.37††
Lone parent	24	45.8	0.021††	33	33.3	0.085†
Physical activity						
Both	171	77.8		155	50.3	
One parent plus step-parent	11	54.5	0.090††	19	36.8	0.27††
Lone parent	27	59.3	0.042††	42	59.5	0.29†

† Compared with both parents
†† Fisher exact test for small numbers – comparing with both parents

4.2.4 Parental health behaviour

Pupils were asked about their parents' health-related-behaviours in order to assess whether it was associated with their own behaviours. As can be seen in Table 4-8, there was a general pattern that pupils' health behaviours were lowest when neither of their parents was reported to participate in these behaviours. First, for smoking, parents' behaviour appeared to have had a greater effect on males as there was a threefold increase in smoking (from 7% to 21%) between those who reported neither parent smoked and those where at least one parent smoked. Females reporting that neither parent smoked had a smoking rate of 26%, which increased by 10% when at least one parent smoked. Second, with respect to weekly alcohol no difference occurred between males who reported at least one parent currently drank, as compared with those who did not. Among females who reported neither parent currently drank, 15% reported drinking themselves compared with 24% where at least one of their parents currently drank. Third, considering drug-use, the rate for males almost doubled (from 27% to 53%) and in females more than doubled (from 21% to 50%), amongst those whose parents were reported to have used drugs compared with those who reported no parental experience. Fourth, focusing on physical activity, males' physical activity increased by 8% to 81% and females by 14% to 61%, when comparing pupils reporting neither parent exercised regularly with those reporting at least one parent who regularly exercised.

Table 4-8 Living with parents reported to undertake similar behaviours and self-reported health behaviours

	Males			Females		
	n	% of n	p-value	n	% of n	p-value
ALL in sample (N)	213			220		
Current smokers						
Neither	84	7.1		94	16.0	
At least one parent currently smoked	113	21.2	0.009†	117	25.6	0.141†
Missing	16	37.5	0.003††	8	37.5	0.15††
Weekly consumption of alcohol						
Neither	138	17.4		149	14.8	
At least one parent currently drank regularly	56	17.9	0.94†	58	24.1	0.11†
Missing	16	25.0	0.49††	6	0.0	
Ever tried drugs						
Neither	165	26.7		177	20.9	
At least one parent who had ever taken drugs	19	52.6	0.023††	10	50.0	0.047††
Missing	8	25.0	1.00††	3	0.0	
Physical activity						
Neither	128	72.7		142	47.2	
At least one parent regularly exercised	68	80.9	0.21†	69	60.9	0.06†
Missing	9	52.9	0.16††	9	55.6	0.74††

† Compared with the first category (neither)
†† Fisher exact test for small numbers – comparing with the first category (neither)

4.3 *'School effects' multivariate modelling*

The joint influence of these factors was investigated in a multivariate logistic regression (using SPSS v 9). Unlike the analyses in the previous section, a combined model for both sexes is shown. In these analyses, a full model of factors is presented (see Table 4-9). For each outcome, interactions between sex and school, plus those between social class, family structure and parental behaviour with age and sex were tested, but none of these was significant. The only significant interaction was between sex and year and, in particular, for the smoking and drug use outcomes. As all the independent variables

explored showed significant differences with one or more of the outcomes and between sexes, they were all controlled for in the multivariate analysis.

The independent variables included as fixed effects in multivariate logistic regression were:

- school (the reference category is Bruce High which had the lowest level of smoking).
- sex (the reference category is male);
- year at school (the reference category is S2 (age 12/13);
- interaction between year and sex (the reference category is S2 males);
- social class of the head of household (the reference category is occupational category 1 / 2 – professional / managerial / technical);
- family structure (the reference category is living with both parents);
- living with a parent undertaking the same / similar behaviour (the reference category is neither parent).

Table 4-9 Multivariate relationship models of pupils' health behaviours with school

	Current smoking	Weekly alcohol consumption	Ever tried drugs	Physical activity
Df of model	18	18	18	18
	Odds (95% CI)	Odds (95% CI)	Odds (95% CI)	Odds (95% CI)
Sex				
Male (reference category)	1	1	1	1
Female†	0.7(0.3,1.9)	0.9(0.4,2.2)	0.3(0.1,0.8)	0.4(0.2,0.7)
Year at school				
S2 (age 12/13) (reference category)	1	1	1	1
S4 (age 14/15) †	2.3(1.0,5.3)	2.3(1.1,5.9)	4.2(2.0,8.8)	1.0(0.5,2.0)
Interaction between year and school				
S2 male (reference category)	1	1	1	1
S4 females†	3.4(1.0,11.1)	1.0(0.3,2.9)	3.6(1.0,12.6)	0.9(0.4,2.1)
Parents' social class				
I or II (reference category)	1	1	1	1
IIIa or IIIb†	1.9(0.7,4.6)	1.2(0.5,2.5)	1.6(0.8,3.7)	0.8(0.5,1.5)
IV or V†	5.4(2.1,14.2)	1.9(0.8,4.3)	1.4(0.6,3.3)	0.8(0.4,1.5)
Missing (not answered or uncodable)†	2.3(0.6,8.1)	1.5(0.5,4.9)	3.6(1.2,10.5)	0.6(0.3,1.3)
Family structure				
Both (reference category)	1	1	1	1
One parent plus step-parent†	4.0(1.5,11.1)	0.9(0.3,2.6)	2.8(1.1,7.3)	0.5(0.2,1.1)
Lone parent†	2.8(1.3,5.8)	1.3(0.6,2.7)	2.3(1.2,4.7)	1.0(0.5,1.7)
Living with a parent undertaking the same / similar behaviour[1]				
Neither parent (reference category)	1	1	1	1
At least one parent †	2.6(1.4,4.9)	1.4(0.8,2.5)	3.6(1.4,9.3)	1.6(1.0,2.6)
Missing†	5.6(1.7,18.2)	1.4(0.4,5.0)	0.7(0.1,4.0)	0.5(0.2,1.3)
School*[2]	0.0019	0.021	0.43	0.34
Bruce (reference category)	1	1	1	1
School 4†	1.0(0.2,4.3)	0.8(0.2,2.8)	1.2(0.4,3.3)	1.2(0.5,2.9)
School 8†	2.3(0.5,10.2)	2.3(0.7,7.6)	1.0(0.3,3.2)	1.4(0.6,3.4)
School 2†	5.5(1.5,20.2)	2.0(0.7,6.0)	0.6(0.2,1.6)	1.2(0.5,2.7)
School 3†	5.3(1.5,18.9)	1.1(0.3,3.4)	0.8(0.3,2.2)	1.0(0.5,2.2)
School 7†	4.3(1.1,16.4)	2.4(0.8,7.5)	0.4(0.1,1.2)	1.3(0.5,2.9)
Jude †	4.9(1.3,18.0)	0.6(0.2,2.3)	1.3(0.5,3.6)	1.5(0.6,3.5)
Seaview †	11.4(3.1,42.3)	3.7(1.2,10.8)	1.0(0.3,2.9)	3.1(1.2,8.0)

† Odds ratio and 95% CI for each health behaviour, compared with the reference category.

*P-value for overall variable- the 'school effect'

[1](i.e. parental smoking for the smoking outcome, parental alcohol consumption for alcohol consumption outcome, parental drug use for drug taking outcome and parental exercise for the physical activity outcome)

[2] The schools are presented in the same rank order as Table 4-3, that is in the order for lowest to highest for unadjusted smoking rates. This allows the reader the opportunity to see how adjustment affects the rank order of schools.

The main results can be summarised as follows. First, an independent effect of sex was found for two of the outcomes, 'ever tried' drugs and physical activity. In both cases being female compared to being male was associated with lowered odds (by more than a half) for these behaviours. Second, year at school (S4 versus S2) was significantly related to an increase of prevalence of all the substance use outcomes, but not to physical activity. The effect is such that it more than doubled the odds for current smoking and made a more than fourfold increase for drugs. As suggested by univariate statistics (see Table 4-5), there was a significant interaction between year and sex (S4 females versus S2 males) for both smoking and drug use, which increased the odds of both up to three times. Third, social class had an independent effect on smoking as pupils in class IV or V were five times more likely to smoke than those in class I or II. Pupils with missing (not answered or uncodable) social class were over three times more likely to have tried drugs than those of class I or II. Fourth, living with a lone parent or stepfamily, compared with living with both parents, doubled the odds of both smoking and trying drugs. Fifth, living with a parent engaged in the same or similar health related behaviour was associated with an increase in odds for all the outcomes apart from weekly alcohol consumption. Thus living with parent(s) who currently smoked doubled the odds of smoking among their children; had ever taken drugs quadrupled the odds of their children ever trying drugs; and exercising regularly almost doubled the odds of their children being physically active. Although the findings that parent's health related behaviours were associated with their children's behaviours is not new, that in relation to parents' drug use is a new UK finding.

Now focusing on the key purpose of this chapter, to assess 'school effects' on health behaviours, no 'school effect' was found for drug-use or physical activity (see also

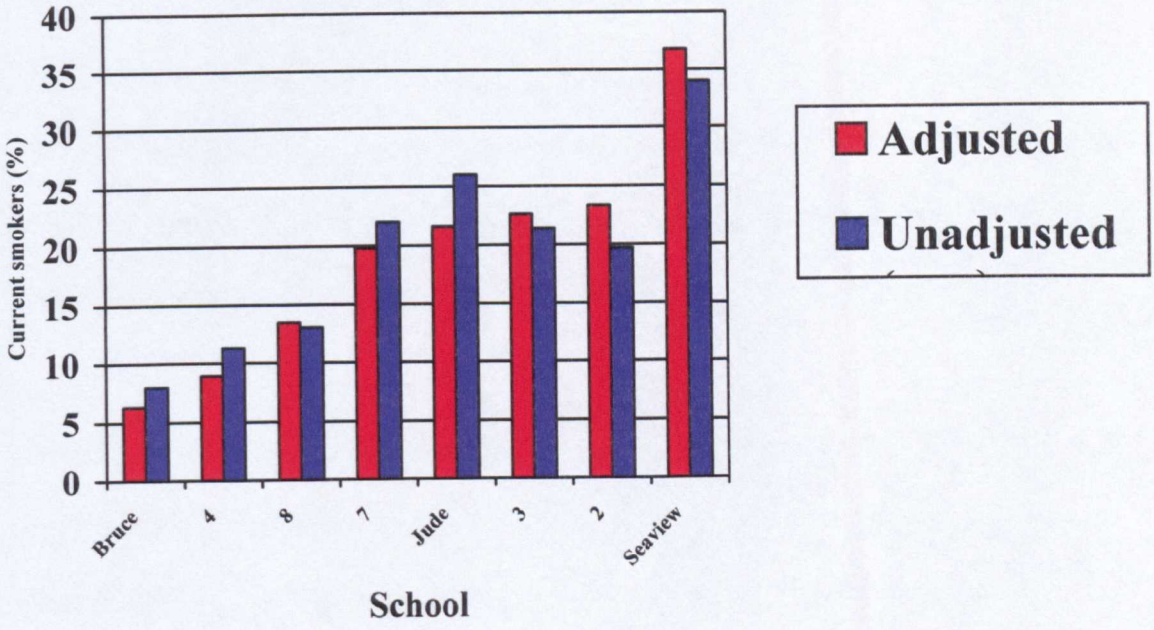
Discussion). The 'school effect' for alcohol was weak, only one school being significantly different from the reference school. The strongest 'school effect' was for smoking where 5 schools had significantly higher odds for smoking than the reference school. The size of the 'school effect' for smoking was large, with pupils in one school (Seaview) having an odds ratio for smoking that was 11 times higher than that of the reference school (Bruce). Thus, of all the outcomes explored, smoking exhibits the most variation between schools.

Figure 4-1 complements Table 4-9 by graphically showing the impact of the 'school effects'. The adjusted rates of smoking in Figure 4-1 indicate what the smoking rates in each school would be if each school pupil composition were average for all the predictors of smoking used in this study. The calculations for this figure were carried out in Excel using the coefficients produced as part of the output from the multivariate logistic regression. The mean or proportion (for each predictor variable) was first entered into Excel, and these were multiplied by the coefficient for each predictor (e.g. lone parent co-efficient times the proportion of lone parents in the study sample as a whole). The products of these calculations were summed with the intercept coefficient, and this provided an adjusted linear predictor. For each school, the school's adjusted coefficient was added to the adjusted linear predictor; then for each school the exponential of the answer was divided by the exponential plus one, finally the result multiplied by 100 provides the adjusted percentage rate of smoking for each school. For comparative purposes the figure also shows the raw or unadjusted rates for schools.

The rates vary from 6% for Bruce to 37% for Seaview, a range of 31%. The range for the raw (unadjusted) smoking rates is 26% (see Table 4.3). Therefore, adjusting for

known predictors for smoking has **increased** the variance between schools. It is possible that the raw rates have less variation because some schools had deflated levels due to home influences, and these rates increased after adjusting for these influences.

Figure 4-1 Comparison of adjusted and unadjusted (raw) rates (%) of smoking by school



4.4 Selecting Schools

To recap (see also Table 4.9), significant 'school effects' were found for both smoking and alcohol. The school effect for alcohol was weak showing only Seaview to be significantly different from Bruce, the reference school. The school effect for smoking was strong with Seaview pupils being 11 times more likely to smoke than those at Bruce. Although smoking is the outcome that takes precedence in the selection of schools as it had the strongest school effect, there is no conflict as for both alcohol and smoking the two obvious schools to select were Bruce and Seaview. However, the

comparison is limited by the fact that Seaview is an island school whereas Bruce is in an industrial town. Accordingly, differences between the schools could be explained by geographic location rather than 'within school' issues.

Given the concerns with the Bruce / Seaview comparison, it was decided to include a third school to explore in more depth. Among the candidate schools (the four other schools that were significantly different from Bruce in their smoking outcome, see Table 4.9), Jude has clear advantages as Jude and Bruce are both located in the same town thereby reducing the impact of area effects. Although Jude is denominational and Bruce non-denominational, in terms of deprivation these two schools also had the most similar social class distribution of any in the sample. In terms of the outcomes they also differed significantly from each other on the smoking outcome.

The next chapter will present the results of each school's audit with particular reference to three case study schools, namely, Bruce, Jude and Seaview. Following the audit chapter, each of the three case studies will be presented in a dedicated chapter.

5 Audit

There are two main purposes to this chapter. The first is to describe the results of an audit conducted in all eight schools related to health education and health promotion. The second is to include the audit results in the process of triangulation, enabling an assessment of whether or not the results confirm the hypothesis of a connection between rates of health-related behaviours and school processes. Given that Chapter 4 demonstrated that the strongest school effect was for smoking, this chapter will explore whether higher levels of preparation, communication and action are associated with lower levels of smoking and vice versa.

As described in the Methodology Chapter, the audit was conducted by the Health Education Development Officer (HEDO) seconded by Argyll and Clyde Health Board to the study. All Principal Teachers (PTs) in each of the eight schools participated. The audit extended the Strathclyde Health and AIDS Project in Education (SHAPE) formal curricular audit (Strathclyde Regional Council Department of Education & Scottish Education Department, 1990) to include the hidden curriculum and use of health and caring services. The three components of the audit were preparatory behaviour, communication and action. These three components indicate stages on the way to Health Promoting School (HPS) status. Each component will be explored in turn for all eight schools, but with particular attention to the three case study schools.

All schools were level 2. This meant that each had received staff development and support for teaching health and AIDS education from the HEDO both in terms of classroom teaching (curriculum and how to deliver the education) and the wider school

context (hidden curriculum) relating to the Health Promoting School concept. It was therefore expected that all schools would achieve some scoring in each section of the audit. Accordingly, of most interest is the extent of activity undertaken by each school. Due to this emphasis on levels of activity it was decided to give each initiative under any heading a score of 1. For example, if a school reported four distinct Health Promotion initiatives this was given a score of four. An alternative would have been to allocate a score of one simply because a school had done some health promoting; however, this discriminates poorly between the schools as most of them had made at least one health promotion initiative.

The Principal Teachers that contributed to the audit were asked if there were any factors which acted as facilitators or barriers towards achieving each of the items on the audit. For each section in this chapter the facilitators and barriers provided by the teachers have been ranked by the frequency with which they arose, the purpose of which is to elucidate the most enabling and the most hindering, factors within a school setting with regard to progress towards HPS.

5.1 Preparatory behaviour

Table 5-1Preparatory behaviour undertaken by the eight schools

	School							
Preparatory behaviours*	**1 J**	**2**	**3**	**4**	**5 S**	**6 B**	**7**	**8**
Health included as a priority in the school's development plans	1	1	1	1	1	1	1	1
Appointed a AHT with a specific remit for Health	0	0	0	1	0	0	0	0
Established a health education committee and nominated a co-ordinator	1	1	1	1	1	1	1	1
Made time for regular meetings of the health education committee	0	0	0	1	0	0	0	0
Audit every department's contribution to Health Education	1	1	1	1	1	1	1	1
Health Education audited in conjunction with Associated Primary Schools. This was related to Scottish Education Department's 5-14 initiative	0	0	0	0	0	0	0	1
Undertaken a survey to assess pupils' health needs	0	0	0	0	0	0	0	1
Decided on Health Education & Promotion priorities and targets	0	1	0	1	1	1	1	1
Made a curricular plan for health education	0	0	1	0	2	2	0	4
In-service training provided for staff on HIV / AIDS	1	1	1	1	1	1	1	1
Supported the Health Committee to implement the teaching of the resource pack `Skills for Adolescence' [Lions Club International, 1986 #88]	0	1	0	0	0	0	0	0
Given further staff training to teaching staff on health education and health promotion	0	0	2	0	0	0	0	1
Total preparatory score	**4**	**6**	**7**	**7**	**7**	**7**	**5**	**12**

*J=Jude, S=Seaview & B=Bruce

Out of a possible 12 categories, there were four preparatory behaviours that all eight schools had undertaken (see Table 5-1). First, all schools had prioritised health by including it as a priority in their school's development plans. Second, the schools had established a health education committee and nominated a co-ordinator. Third, every school had audited every department's contribution to health education. Fourth, in-service training (INSET) had been provided for staff on HIV / AIDS in each school.

All, apart from two schools, had decided on health education and health promotion priorities and targets. One of the two schools which had not decided on priorities and targets was Jude High, which is one of the case study schools. Half of the schools had made a curricular plan for health education. Of the three case study schools, Jude was the only school that had not made such plans.

Only two schools had provided further staff training to teaching staff on health education and health promotion. Neither of these schools were case study schools.

Of the eight schools, two preparatory behaviours were undertaken solely by School 4 (the most deprived school in the sample); it was the sole school to have appointed an Assistant Head Teacher with a specific remit for health and to have made time for regular meetings of the health education committee.

School 8 was the only school that had undertaken a survey to assess pupils' health needs. This was part of a survey that the school had participated in, undertaken by Exeter University (Balding, 1992b). The researchers at Exeter had the practice of providing aggregated feedback to all their participating schools. School 8 reported to the Argyll & Clyde study Researcher that they had found the feedback from Exeter very helpful as a needs assessment exercise. In addition, School 8 was the sole school that had audited Health Education in conjunction with associated primary schools.

School 2 was the only school that supported the Health Committee to implement the teaching of the resource pack 'Skills for Adolescence'.

School 8 had the highest score for preparation (score of 12), followed by four schools that all had a score of seven (Bruce, Seaview and schools 3 and 4). Like Bruce, School 8 had a low smoking rate, not significantly different from Bruce's. Jude with a high rate of smoking had the lowest score for preparation (score of 4). While the Bruce and Jude comparison fits our model, the fact that Bruce and Seaview (high smoking rate) had the same score does not discriminate between these schools in the predicted direction.

The schools were also asked to provide information on the facilitators and barriers of the preparatory behaviours. Full information is provided for each school in Tables provided in Appendix 2. First, the facilitators will be described followed by the barriers. The most frequently mentioned facilitator was the Health Education Development Officer (HEDO) who was conducting the audit. The HEDO was mentioned as a facilitator 16 times by 6 schools. The next most frequently mentioned facilitator was co-operation of staff within schools, mentioned 5 times by 4 schools. The support of the Headteacher ranked third (4 times by 2 schools). Time made available ranked fourth (3 times by 3 schools). Three facilitators were ranked fifth (2 mentions each by 2 schools); namely, volunteer staff, planned activity time (PAT) in-service helping group cohesion and the willingness of PTs. The sixth ranking facilitator (2 mentions by 1 school) was co-operation between the Health Education Co-ordinator (HEC) and school departments, mentioned by the school with best outcomes for smoking, namely, the reference school Bruce. Finally, nine facilitators were mentioned once by one school each. These facilitators were: co-operation of the Health Education Committees; funding being made available; commitment from the Development Plan Committee; willingness and co-operation of the Physical Education Department; willingness of the Assistant Head

Teacher (AHT); co-operation of the Guidance staff; a teacher being given the remit for primary school liaison; and co-operation of outside agencies.

The highest-ranking barrier towards preparatory behaviours was lack of time, mentioned 12 times by 5 schools. The second highest-ranking barrier was change of personnel (5 times by 4 schools). All the other barriers were mentioned once by one school only. The other barriers were: The Health Education Committee saw its only remit as the 'Health Day'; the remit of the Health Education Committee was not clear; individual roles within the Health Education Committee were not clear; health was in competition with other curricular demands; the challenge of getting all the staff together; health was not clearly a priority of the school; getting the backing and support of all staff was challenging and was only achieved after intensive awareness raising; time-tabling restrictions; teachers having to cover other teachers' classes unexpectedly; reduction in planned activity time (PAT); concern that the school was over committing; SMT remits changing, resulting in a re-shuffle of responsibilities; change of remit of staff; change of materials; lack of in-service provision within the Education Division; large class sizes viewed as disadvantageous to teaching methods involved in Health Education; and teachers viewing this exercise as 'yet another audit.'

5.2 Communication

Table 5-2 Communication reported within the eight schools

	School							
Communication	**1 J**	**2**	**3**	**4**	**5 S**	**6 B**	**7**	**8**
Disseminated to all staff the results of the school health audit	0	1	0	0	0	1	0	1
Liaised with outside agencies in the local community	0	1	0	2	2	0	0	0
Liaised with parents with regard to health issues	0	0	1	0	1	0	0	0
Created a pupil council	0	0	0	0	0	1	0	0
Total communication score	**0**	**2**	**1**	**2**	**3**	**2**	**0**	**1**

The audit did not reveal comprehensive communication across the eight schools (Table 5-2). Only three of the eight had disseminated to all staff the results of the school audit. The same number of schools (two of the three were different schools) had liaised with outside agencies in the local community about health issues. Two schools had liaised with parents about health. Only one school had created a pupil council, namely, Bruce High.

Seaview had the highest score for communication (score of 3), followed by three schools with a score of 2 (Bruce and schools 2 and 4). Two schools did not score on any of the audited communication issues, namely, School 7 and Jude. The fact that Seaview and Jude both had high rates of smoking, but opposing scores for communication (highest versus lowest) indicates that, as measured, communication does not fit the model in this thesis.

This suggests that communication as, reported in the audit, has not helped discriminate between the schools with high and low rates of smoking. This may be because

communication is not discriminating, that there was a failure in accurate reporting for the audit, or perhaps the items in the audit did not best reflect the issues.

The highest ranked facilitator of communication was the co-operation with outside agencies (in relation to schools communicating with them regarding health issues) which was reported four times by four schools. The second highest ranked facilitator was the Health Education Development Officer, mentioned twice by two schools. Three facilitators were mentioned once by one school, respectively: support of SMT, pupils' parents were helpful and supportive and finally, the Health Committee.

The barriers to communication were each mentioned once by one school. These were lack of time, limitations of mutually available time and health clearly not being a priority of the school.

5.3 Action

Table 5-3 Action reported by the eight schools

	School							
Action	**1 J**	**2**	**3**	**4**	**5 S**	**6 B**	**7**	**8**
Implemented the teaching of health education for pupils	0	1	0	0	0	1	1	1
Taught HIV / AIDS education to pupils using the ESCAPE-AIDS package [Strathclyde Regional Council, Undated #87]	0	1	1	1	1	1	1	1
Improved the physical school environment	0	0	2	0	0	1	1	1
Undertaken health promotion initiatives for pupils	0	0	0	0	0	3	3	3
Undertaken health promotion initiatives for teaching staff	0	0	1	0	0	3	2	6
Ran a parents' workshop on HIV / AIDS	1	0	0	0	1	0	0	1
Collaborated with outside agencies in the local community	0	0	0	2	1	0	0	0
Developed of a positive statement of school code of conduct	0	0	0	0	0	1	1	0
Total action score	**1**	**2**	**4**	**3**	**3**	**10**	**9**	**13**

All schools except Jude High (case study school with high smoking rates) had taught HIV / AIDS education to pupils using the ESCAPE-AIDS package (see Table 5-3). It should be noted that the Regional Education Authority had made the teaching of ESCAPE-AIDS policy for all schools. Half of the same schools had both improved the physical school environment and undertaken health promotion initiatives for teaching staff. Half of the schools (same schools, but for one) had implemented teaching of Health Education for pupils. Two schools had collaborated with outside agencies (and involved them in school activities such as Health Fairs), while two different schools had developed a positive statement of school code of conduct.

School 8 had the highest score for action (score of 13), followed by Bruce (score of 10). Interestingly, while Bruce had the lowest rate of smoking in the sample, that of School 8 was not significantly different. Jude with a high rate of smoking had the lowest score for

action (score of 1). The other case study school with a high rate of smoking, Seaview, also had a low score (score of 3). Therefore, action does seem to discriminate between the case study schools in the predicted direction.

The Health Education Development Officer (HEDO) was cited as the highest-ranking facilitator of action, mentioned six times by four schools. The second highest ranking facilitator was the co-operation of the staff (five times by four schools). Co-operation of outside agencies ranked third (four times by three schools). Next was the 'Y' (Youth) Touring Company which was a youth theatre group that toured round schools and performed plays related to lifestyles and life choices. At this point in time the group was performing a play about HIV / AIDS – they were mentioned three times by two schools. In equal ranking with the 'Y' Touring Company was having time allocated for action. Next were availability of funding and the Health Committee (each mentioned twice by two schools). The rest of the facilitators were all mentioned once by one school, these were: pupils' enthusiasm; support of staff; PTA help and support; HIV / AIDS information being put in to the 'health boxes' of all departments in the school; involvement of both teaching and non teaching staff; the helpfulness of in-service training received; vertical guidance; pupil and staff representation; canteen becoming more flexible and co-operative; volunteer staff; and help from the teacher with remit for primary school liaison.

The highest ranking barrier to action was lack of time, mentioned seven times by six schools. Second was lack of focus (twice by two schools). Equal third ranking (mentioned twice by one school) was lack of school assembly and the caterers motivated to make a financial profit which could lead to them preparing food the pupils liked to eat

rather than food that would be healthy for the pupils. All the other barriers were mentioned once by one school, they were: health being in competition with other curricular demands; health clearly not being a priority of the school; continuous change and arrival of new materials necessitating updating a recently updated course; change of remit of staff involved; large class sizes being felt disadvantageous to the teaching methods involved in health education; lack of teacher confidence and lack of perceived support for these teachers; and the need to continually raise awareness of issues.

5.4 Triangulation

It is clear from the sections above that neither schools' preparatory behaviour nor communication appear to be associated with schools' rates of current smoking. This is confirmed by Figure 5-1 and Figure 5-2 below which plot the position of all eight schools (labelled within the chart) for smoking against their preparatory score and communication score respectively. The Spearman's correlation between the rank orders of smoking odds and levels of preparatory behaviour and communication are statistically insignificant ($r=0.266$, $p=0.524$ and $r=-0.173$, $p=0.682$ respectively).

Figure 5-1 Smoking rank by levels of preparation

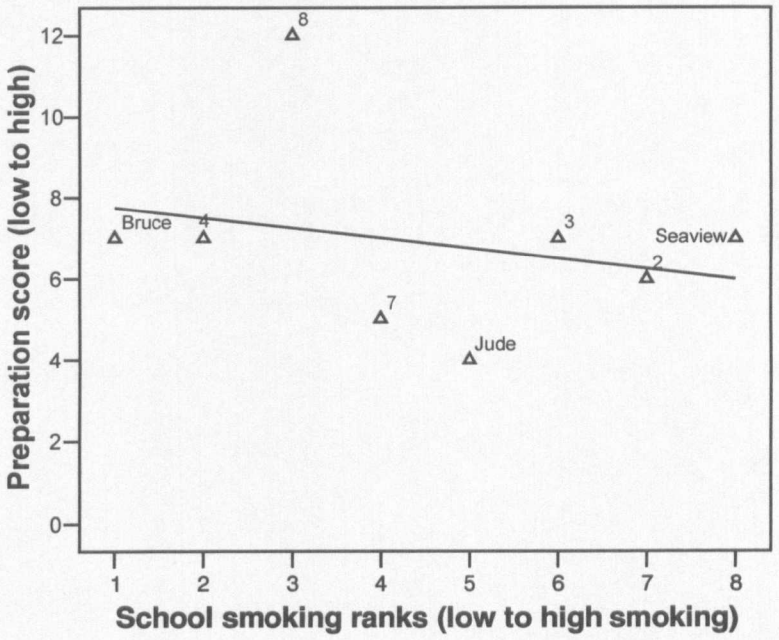
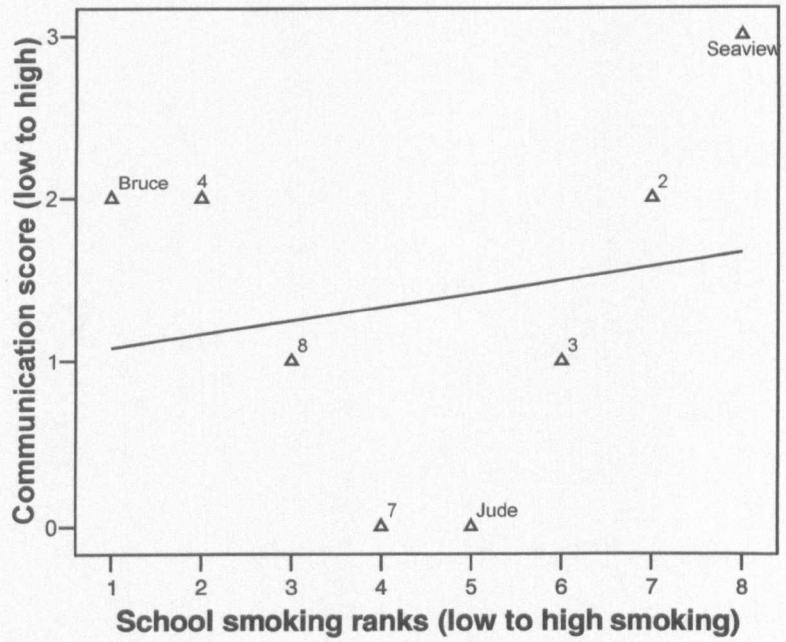
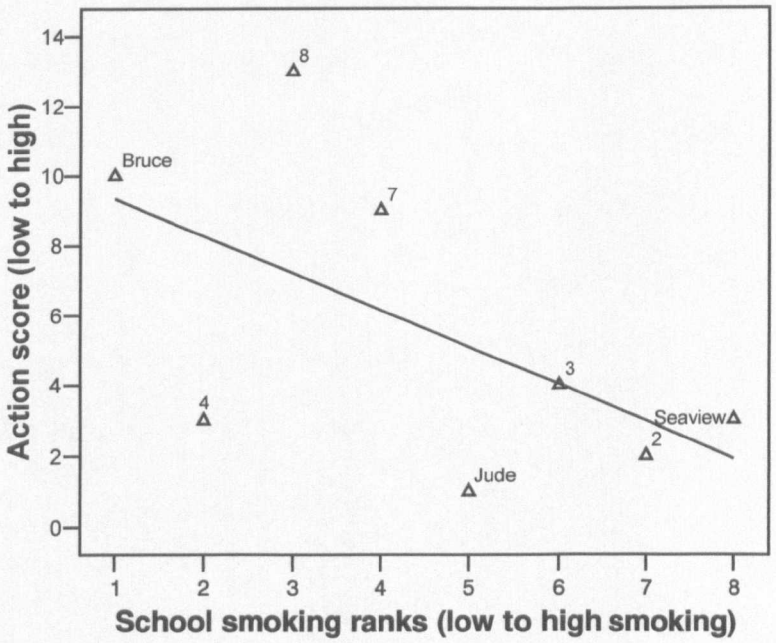


Figure 5-2 Smoking rank by levels of communication



However, actual action on health education and health promotion seems, at least descriptively, to be associated with the 'school effects' for current smoking between the case study schools: Bruce, with the lowest smoking rate, had a markedly higher level of activity than Jude and Seaview, both of which had significantly higher smoking rates. Figure 5-3 shows the position of all eight schools for smoking plotted against their audit action score. It is clear that all four schools with high rates of smoking also had low levels of activity. Three out of the four schools with low rates of smoking had high levels of activity, only one school out of eight not fitting the pattern neatly. The plot also shows the best-fit regression line which, as expected, clearly shows an association between higher activity and lower rates of smoking. The Spearman's correlation between the rank orders of smoking odds and activity levels was a respectable 0.551, but unsurprisingly given a lack of power, the p value was not significant, at best indicating a trend (p=0.079).

Figure 5-3 Smoking rank by levels of HE & HP activity



5.5 Discussion

The key facilitators for all three components of the audit were the support of the Health Education Development Officer, the co-operation of school staff, support of outside agencies and support of the Head Teacher. The key barrier was lack of time. This suggests that while the schools had prioritised health as an issue they were, in the main, not willing or able to allocate time from other core commitments of the school.

According to the audit, school 8 was the top school for both preparatory behaviours and action (though average for communication). While it is possible that School 8 was the closer approximation to HPS, it should be noted that it was the school from which the HEDO was recruited. It is therefore possible that their audit was the best as the HEDO knew most about that school's activities or perhaps her colleagues were motivated to complete the audit particularly thoroughly.

The other school that approximated well to HPS was Bruce High, the reference school with best outcomes for smoking. Bruce was the second top school in all three of the categories: preparatory behaviours, communication and action. Furthermore, as the HEDO had no particular link to Bruce, the issue of possible bias is reduced and the results can be more equitably compared with those of the other schools.

Seaview High performed well in the audit too (Seaview is one of the case study schools, with significantly poorer smoking outcome than Bruce High). Seaview was second equal for preparatory behaviours, first for communication, but poor for action.

Therefore, in terms of discriminating between Seaview and Bruce, the only component of the audit where notable discrimination exists is action.

The other case study school, Jude ('school effects' also significantly poorer than Bruce High), performed worst of all eight schools on all three of the audit components (preparatory behaviour, communication and action). In terms of the audit this school very clearly fits the pattern proposed by the analysis plan.

The reason for including three case study schools is that while the comparison between Bruce and Jude (both in the same town and with close levels of deprivation) is most appropriate, that between Bruce and Seaview is challenging due to very different locations. The audit results indicate that Bruce and Jude fit the theory well in that a higher score on the audit is associated with a positive health-behaviour outcome for smoking, while a lower score is associated with a poorer outcome. The comparison between Bruce and Seaview is not so clear cut, as Seaview did well in preparatory behaviours and communication, but did poorly in action. However, as action is the most likely component of the audit to impact on pupils, Seaview also fits the model demonstrating triangulation between smoking rates and audit data on action.

With regard to current smoking, the evidence is highly suggestive that there is an association between levels of smoking and levels of school's HE and HP activity.

The next four chapters will explore the results of the qualitative interviews undertaken in the three case study schools.

6 Case study one: Bruce High School

Chapter 4, which investigated pupils' health behaviours based on their questionnaire data, ended with the selection of the schools to be explored in more depth via the qualitative interview data. To recap, the purpose of the qualitative interviews is to explore the processes within schools which were found to have significantly different outcomes, to establish whether these processes might help to explain the outcomes and to enable an assessment of how closely each school approximates the HPS concept.

This chapter focuses on Bruce High, the reference school (the school against which the other schools were compared) because it had the lowest level of pupil smoking (8%) in the study after adjusting for socio-economic status, family structure and parental behaviours. Given this, it seems appropriate that it should be the first school to be presented in a case study. All of the case studies will follow the same structure of presentation.

Bruce High was located in a medium sized industrial town with high levels of deprivation (for instance, 34% of pupils were drawn from a deprived background) due to a decline in the traditional 'heavy' industries that had been located in the town. Some new industries were being attracted to the town but confidence in the stability of employment in these new industries was still being established. Historically and presently, the town had a reputation for heavy 'binge' drinking, and this had extended to include drug-use over the past few decades. Possibly due to the reasonable size of the town there were good recreational facilities including libraries, cinema, sports facilities that extended to swimming pools and an ice-rink. The town had a good transport

infrastructure (road, bus and rail) linking it to neighbouring towns and the main city centre of Glasgow. The school was located about 2 miles from the town centre, but was convenient for transport links.

Setting up interviews at Bruce High was straightforward. Although the interviews were set-up in collaboration with the delegated contact member of staff (see Methods Chapter), the Head Teacher was very interested in and supportive of the whole research processes within his school. The school was modern and the building well maintained. The reception area was on ground level across from the main entrance doors of the school. There was a large 'welcome' sign, comfortable seats, many large plants, trophies won by the school and examples of pupils' artwork and writing on display.

In Bruce High, 4 members of the senior management team (SMT) (including the Head Teacher (HT)), 5 principal teachers (PTs), 4 non-promoted teachers (NPTs), 4 boys and 6 girls were interviewed. This amounted to 23 interviews in total.

The views that the SMT, PTs, NPTs and pupils (male and female) had regarding their school will now be explored. Throughout, it is made clear to which group each respondent belonged. The analysis of themes is ordered such that the HT and SMT views are reported first, then PTs, followed by NPTs and finally the pupils' reports.

The Introduction argued that the Health Promoting School (HPS) concept provides a useful framework by which to detect school processes that may be related to health outcomes. As stated in the Methodology Chapter, the HPS theory has therefore been used as a framework to explore the process data from the case studies. The analysis flags

consistency and inconsistency between reports. For instance, where views are different between different groups of respondents and where deviant cases exist this is highlighted and discussed in the analysis.

6.1 Physical condition of the school

A health promoting school should endeavour to make the physical environment as pleasant and attractive as possible.

The physical condition of the school did not appear to be a salient issue for the interviewees from Bruce High, only two people mentioning it. One of these involved a member of senior management who explained how the school created department logos and nameplates that made the school look brighter and helped visitors and new pupils to find their way around. The only other comment was a male pupil criticising the cleanliness of the school.

'the place [school] *is a bit dirty and needs cleaned up'* (int6boy4)

6.2 Health Promoting School

6.2.1 Health Education and Health Promotion

A school approximating a HPS should have the policy known about by the whole school (therefore suggesting there should be consistency between reports). This policy should reveal a commitment by the school to HE and the policy should triangulate with the

practice actually taking place within each school. The next two sections will address these issues for Bruce, firstly focussing on policy and then practice.

6.2.1.1 Accounts relating to policy

The Head Teacher in Bruce High believed that the school had a health promoting ethos. He explained and justified that belief by indicating that Health Education / Promotion was a high priority for the school and that they had an action plan and structure designed to promote health. He further elaborated on the school having a variety of health promotion initiatives for both staff and pupils. Finally, he explained that the school used volunteer teachers for health education and health promotion and prioritised them being able to undertake this work in the school timetable.

> *'We have a health promoting ethos.'*
>
> MH *'What do you mean by that?'*
>
> *'The fact that we have a structure designed to promote health. We have a Senior Teacher whose principal remit is health. One of our Assistant Head Teachers made sure that health promotion was part of the school development plan. We have an action plan for health and make sure these plans are in the School Calendar. By doing that we keep health at the forefront. We also ensure we plan a variety of activities to keep pupils interested. We are also moving to ensuring health education is embedded in the curriculum. We have had a lot of initiatives with staff to keep their awareness of health issues high. Finally, we have moved away from tutors delivering health, it's now volunteers and trained specialists.*

> *Not just lip service, we believe in health promotion. There is priority for time tabling, we don't just slot in whoever is available, we appreciate the needs for a delicate touch or it can be disastrous.'* (Head Teacher / int6smt3)

Another member of the SMT affirmed the Head Teacher's views. He also believed that the whole staff were aware of health education and health promotion and that there were plenty of initiatives undertaken by the school.

> *'The whole staff should be aware of our priority for health promoting. There is certainly plenty of initiative in the school. For instance, we are a non-smoking school for staff and pupils, we encourage healthy eating and we have a full social education programme that prepares pupils for life beyond school. The boss gives extra time for guidance. I'm aware of working groups that look at whole school issues. How much there is awareness of overlaps and use of material, I'm not sure, but certainly these types of issues are raised within guidance.'* (int6smt1)

A further member of SMT raised the issue that the school did aim to embed health education within the curriculum and also reiterated the priority of staff health.

> *We are trying to embed H.E. within the curriculum, until it is properly part of the formal curriculum. In the past health issues have been raised at whole school assemblies. Generally we're trying to integrate health*

into the work of the school. We've tried to make staff health a priority. Looked after staff feel better able to cope.' (int6smt4)

Two PTs and one pupil made comments about school level policy. The first PT echoed the comments of the SMT about the school priority for staff health and added further information about the whole school policy on discipline, which he associated with a better atmosphere in the school. The second PT confirmed that staff were cognisant of the school's investment in health and suggested that this was facilitated by having a working group and staff with a health remit. He also thought the fact that the school was a no smoking zone raised pupils' awareness of health.

'The school is concerned about the health of staff. The health committee are training so that they can run a stress management course for us [staff]...*There is a positive whole school policy on discipline, so now there is a better atmosphere in the school.'* (int6pt1)

And:

'There is reasonable staff awareness of the school's commitment to health. I think this is helped because there is a Heath Education working group and a Senior Teacher with a health remit. Things happen to heighten pupil awareness of health, for example, the school is a no smoking zone and there are clear ground rules about that.' (int6pt3)

Finally, pupil awareness of the smoking policy is demonstrated by the following quote, in this case by a female.

> *'We're not allowed to smoke, eat or drink in the corridors. The school doesn't like smoking and we're told we shouldn't drink in the corridor in case we spill it then the floor might get slippy and someone might slip and hurt themselves.'* (int6girl3)

Statements like those above which provided information on school policy triangulate with the results of the audit in that evidence was provided for both a systematic policy and health promoting action for both pupils and staff. All of the senior management team were positive about the current situation, though there was discussion of embedding HE still further into the formal curriculum, so they were still exploring ways of developing further.

The next section moves on from policy to explore teachers' and pupils' accounts of what was actually happening with regard to health education within the school.

6.2.2 Teacher accounts relating to what actually happened

The Head Teacher identified several specific initiatives in Health Education and Promotion that made it clear that they were well established both in the formal and hidden curriculum. Both staff and pupil well being were being actively nurtured.

'In terms of caring for staff we have a Social Committee which organises events that let staff get together informally. It also makes sure that staff illness, serious illnesses that is, births and deaths receive cards and flowers as appropriate... We work closely with parents in all aspects of school life, including health issues and to facilitate that, we run parents' workshops where they can browse through the materials we use and talk to the staff involved... We hold an annual health fair and the school day is timetabled so that the pupils can work round different 'stalls'. Each stall deals with a different aspect of health. We have professional dieticians, a dentist, staff from Drugline, the Police, Scottish Youth Theatre, School Nurse, staff from the Health Board and our P.E. staff talk about the health benefits of exercise and run a class that the pupils take part in to demonstrate different types of exercises. We feel the Health Fairs bring people together, helping inter-departmental liaison and there's a buzz about it. The Fair also highlights the priority the school is giving to health... You already know that the school is a no smoking zone, we have a 'No Smoking Day' when the P.E. and Art Departments collaborate. They organise sporting events, but some pupils are slowed down by having to wear a cigarette suit or an ashtray and it's meant to symbolise how smoking slows you down and affects your sporting capacity... We have information in the dining hall to inform and encourage pupils to make healthy choices...The School Nurse has close contact with the pupils and is involved in many health issues. She is also trained in spotting symptoms of child abuse... Naturally, there is the formal Health and Social Education curriculum which teaches about a

> *range of health topics... Finally, we have tried to make staff health a priority too. We organise lunch-time sport events for staff and also have a relaxation room so that staff who feel stressed can relax'* (Head Teacher /int6smt3)

The other three members of the Senior Management Team who were interviewed all mentioned the Health Fair, No Smoking Day, the School Nurse, encouragement of healthy eating and the staff relaxation room all described by the Head Teacher above. They also raised further initiatives that had happened in the school which the Head Teacher had not covered. These included a Record of Achievement for the pupils, more detail on the Social Education programme and the fact they are trying to teach life-skills rather than take a 'shock-horror approach'.

> *'The Social Education Programme is aiming to prepare pupils for healthy life now and beyond school. We teach sex education and use the Escape AIDS package in S1* [11 / 12 years] *as the feedback we got was that teaching it later was too late. After that we start using 'Drugwise' and also 'Skills for Adolescents' which is a framework that encompasses a wide range of specific issues in a life skills way There has been a reaction against the shock horror approaches that were used until fairly recently... We have a 'Record of Achievement' to formally reward pupils in a positive way that's actually part of our Discipline Policy. '* (int6smt1)

Another member of SMT described the way that school was aiming for whole school coherence in health promotion.

> *'There's always scope to further enhance the coherence of health promotion across the whole school curriculum. We're trying to positively reinforce the messages in as many different ways as possible. The curricula are constantly changing and we need to constantly adapt to keep up to date ... Social Education is not a recent development in this school, it's been happening for as long as I can remember.' (int6smt2)*

The final member of SMT interviewed gave more detail on some of the activities gleaned from the rest of SMT. He elaborated on how non-traditional departments (traditional departments being Biology, Home Economics and PE) approached health. In addition, his description of the school's view of health appears very holistic, including consideration of self-esteem, relationships and the environment.

> ' [The] *English* [Department] *write limericks for the 'Health Fairs' and 'No Smoking Days' and the whole school assembly are read the best limericks. The Health Fair takes up a full school day and each year the S2 pupils* [12/13 years] *all get to attend... We're trying to integrate Health Promotion into the work of the school. For example, English highlight when they're working on a text with a health link... We try and let pupils know that health isn't only P.E., Social Education and Health Fairs, it's also about how to relate to other people, how they feel about themselves and the environment...In terms of formal Social Education, every year group receives one period per week... Obviously, we talk*

about the environment in a full way such as recycling, energy efficiency (which Physics Department teaches in depth), but we also think about the immediate school environment. We've been brightening up the school by producing new nameplates. This also helps S1s find their way around the school. Each department also produced a logo. We're hoping to finish putting up all the door plates for the Primary 7s' visit in June this year... We've tried to make staff health a priority. If you look after staff then they're going to feel better able to cope. We've lunch events.' (int6smt4)

The same member of SMT saw a challenge for Health Education being related to teachers having the skills and confidence to work interactively with pupils rather than teaching them in the 'safer', traditional didactic way. He thought that the more participative classes might benefit teacher-pupil relationships.

'The teachers have to learn new teaching skills like ice-breakers to encourage the pupils and themselves to feel comfortable and participate fully. I think a lot of teachers feel safer with the traditional didactic methods, but Health Education isn't meant to be taught like that. I think the new methods may pay dividends for staff and pupil relationships.' (int6smt4)

Staff and pupils provided many positive examples of school health promotion, which confirmed the SMT position that a lot was happening in the school. An example is presented below

'Time is made by S.M.T. for health issues which helps a lot. Health has a big stake within Social Education. Usually the issues that are highlighted nationally are given particular focus as that keeps it topical for the pupils. As you can imagine, at the moment that means we're doing a lot on drugs and AIDS. We use Drugwise and Escape-AIDS. The teachers who'd be teaching Escape –AIDS were trained at Seamill and all the health education co-ordinators were at the training too. It's a good clear package... The other big issues that we work on are smoking, diet and exercise. For smoking, it's a multi-pronged approach. The school has a strict no smoking policy for both staff and pupils. We also try to raise awareness in fun ways too like the anti-smoking obstacle race organised between Art, English and P.E. It's supposed to graphically illustrate how smokers are slowing themselves down. Home Economics, which is compulsory for both sexes until S3 [13/14 years], *covers healthy eating and hygiene in their syllabus. In addition, there are also healthy eating posters in the dining hall and now the pupils are* <u>not</u> *allowed to buy more than one can* [of fizzy drink] *or one packet of crisps in the dining hall. The rest of their money has to be spent on healthier options! The PTA has a rolling fund-raising programme to provide an apple for every pupil at lunchtime. I'm personally involved in the exercise and fitness side of things and at the moment we're running fitness assessments and are educating pupils how to monitor their improvement in performance and recovery rate, as that is motivating for them. Naturally, they learn to take their own heart rate and we tell them about the importance of warming-up, stretching and warming-down to prevent*

injuries. We also prepare pupils for later life by telling them about how exercise can be a healthy leisure pursuit in their life after school. For their own good, staff are encouraged to take part in sport at lunch-time, like swimming and volleyball. On reflection, that means that the staff who are active at lunch-time are examples of healthy living for the pupils. For staff, we've also got a relaxation room with relaxation tapes – stressed staff need that sometimes! Generally though, the school has healthy, positive, communication between staff and between staff and pupils. The whole school's involved in promoting health. I mean everyone's involved at some point. I really like working here. It's a good school.' (int6pt4)

There were deviant cases, as a minority of teachers were sceptical about the efficacy of what was going on in the school. An area of concern was the issue of the quality of H.E. teaching, which was blamed on lack of preparation time. One teacher exemplified this area of concern, believing that giving time for classes was not enough. Time also had to be put into preparation. He was concerned that lack of preparation was associated with problems in the classroom and that without adequate reflection it undermined his position.

'The problem with H.E. is that people who haven't prepared too often teach it. We're not encouraged or given time to prepare and people can be half way through a lesson and getting into difficulties they haven't foreseen in time to head them off. For instance, I'd discuss heterosexual spread of HIV before homosexual spread so that the majority of pupils

can see it as something they should be cautious about. However, the sheets cover homosexual spread first as it's the most common route of infection in U.K., but then the macho hard men see it as a joke and start stereotyping 'AIDS is for poofs'. This is bad enough if you think there may be homosexual pupils in the class, but after that they don't allow themselves [macho pupils] *to relate to the issue. It becomes a gay issue. I end up not feeling confident to present H.E. well to the pupils.'* (int6pt3)

Further evidence of contradiction between policy and practice related to the school advocating healthy eating while the profit making caterers made their profit by selling junk food.

'I'm annoyed at Region condoning our canteen and tuck shop. We're giving a double message, some pupils get no breakfast then school lunch is a free ticket to buy rubbish. They eat the junk food out of habit and the school doesn't help break that habit. Catering Direct is there to make profit. They're certainly not there promoting health. No, what they promote is crisps and coke for free market profit. It doesn't work. Caring and profiteering raises conflict of interests. You shouldn't judge the school on the canteen as we no longer have control over it thanks to contracting out.' (int6np1)

6.2.3 Pupil accounts relating to what actually happened

Similar to the staff, pupils provided many positive examples of school health promotion, which also confirmed the SMT position that a lot was going on in the school. The pupils

also revealed that social education used active learning methods. This engaged pupils in activities so that learning was 'active' rather than passive. Two such examples are presented below.

> *'In the past two years social education has talked a lot about health. The teachers dispel the myths that go around about health problems.*
>
> MH *'What type of myths?'*
>
> *'Well, like a girl not getting pregnant if you do it standing up and things like that. We got a big amount on AIDS and realise how it's really spread now. We know that condoms can help prevent it...'*
>
> MH *'Do you learn about other things too?'*
>
> *'The dinner hall's got information about different foods and how they're better for you. Home Economics looked at consumer rights. I enjoyed all of that. School's the only place it would happen. My parents don't tell me as much. School's the biggest source of information. We're going to learn about alcohol soon, that'll be interesting... When they teach about health it's much more relaxed than normal classes. They call them tutorials and we can go at a better pace and understand more. We can learn more than we do about other subjects 'cos the teachers are more relaxed. We take part in quizzes and activities, that's quite good.'*
>
> (int6boy1)

One of the girls mentioned the smoking ban that the staff had described (above). She also elaborated on other issues such as the fact that pupils could use PE showers at lunch-time and that the P.E. staff were sensitive to 'girls' problems'. The transcript

further suggests that the school pragmatically and sensitively encouraged hygiene among their pupils.

> *'P.E.'s good. They let you use the showers at lunchtime and give us sheets about healthy food and fitness. We learn that head lice pass on easily too. P.E.'s also good at looking after girls' problems - well I'd only talk to the female P.E. teachers about that... I mean you can get towels for your period from them if you have an accident. My parents are embarrassed about all that so it's good there's some teachers at school you can talk to. They [teachers] talk to us about smoking, eating and drinking... we're not allowed to smoke in the school.'* (int6girl2)

Pupil smoking was not often raised as a concern, probably because the school had become a 'no smoking zone', and they felt it was being dealt with. However, a few pupils mentioned that people who lived nearby telephoned the school to tell on them if they spotted them smoking at the school gate. The pupil was concerned about the bad image that smokers gave the school in the community. This quote further suggests that some people in the local community were acting consistently with the school in terms of discouraging smoking.

> *'Pupils who smoke at the school gates give the school a bad image, especially as it's 'no smoking' inside. Smoking there* [at the gates] *stands out and the people that live near the gates think it's a disgusting thing for them to have to look at. They phone the school and complain'.*
> (int6girl2)

Where pupils had doubts about the efficacy of Social Education, they took the form that it was not taken seriously because it was not examined. Further, there was an issue of the credibility and interest of the teachers in this area.

> *'Social Education is seen by some as a free period There's no exam in it, so why take it seriously...The teachers don't know what it is like, it's all out of books for them. They just rabbit on reading from their book.'* (int1boy3)

The social and cultural divide between pupils and staff was seen by one pupil to be a barrier to effective H.E.

> *'Some teachers take H.E. as common sense and have a bad attitude about 'having' to teach it, but some pupils don't have the [home] background and it isn't common sense to them. It could be good, but the way it is I don't think it is a big influence on me.'* (int6girl2)

6.3 Ethos

The HPS concept emphasises the importance of good relationships between groups within the school. Furthermore, everyone in the school should feel that they can contribute and be involved. Therefore, a school that approximates most closely to HPS would have management that involve and listen to staff (act democratically).

6.3.1 Management ethos

The SMT themselves were keen to communicate with, involve, listen to and respond to staff. There was very much a caring, supportive, open door policy. If anything, the danger would be that of over communication, in recognition of which they tried to avoid repetition of information. The interviews with managers highlighted the fact that they recognised the demands of a teaching job and wanted to do all in their power to give teachers recognition and relieve their stress where possible.

> *'The other members of SMT and I have an open door policy. We are interested in the staff as people and recognise that teaching is a very demanding job. We do not use hidden agendas as, in the long term, these erode trust. We are aware of the importance of maintaining staff morale and encouraging staff to feel that they have a part to play in the initiatives and running of the school. We take their ideas seriously and where possible give them scope to implement them and in return to receive appreciation from SMT. Staff welfare is appreciated, stress is an occupational hazard and so, as I've already said, they are part of the HP activities of the school. We also make sure the social committee marks illness, births and deaths... We know that paper is seen as evil so we try and protect staff from information repetition... Our 'Record of Achievement' award for pupils is intended to be a constructive way to encourage good discipline in the school by rewarding good behaviour.'*
>
> (int6smt2 / Head Teacher)

The management, with only a couple of exceptions, was very highly regarded. Staff commented positively about the SMT as people, noting, in particular, the open-door policy which itself supported the concept of HPS.

> *'You can talk to any of the SMT, they're all approachable and have an open door policy. The SMT encourage this to be a HPS by their promoting and pushing of certain issues.' (int6pt5)*

One member of staff claimed that staff were supportive of SMT as SMT were supportive of them.

> *'SMT are sensitive to the needs of staff and so teachers are sensitive to SMT needs.'* (int6pt4)

It was clear that even non-promoted staff felt part of the decision-making process and valued the SMT.

> *'You're consulted a lot when something is changing and given the chance to air your views. The first draft of something is for comments and then the document is redrafted in light of peoples' views... The SMT are approachable.'* (int6np3)

Another non-promoted teacher echoed this.

> *'The SMT are very receptive and they definitely have an open door policy. They're very approachable, very receptive and will negotiate. It's an excellent school.'* (int6np2)

The two exceptions to this overall positive view of the school involved comments that the SMT were too soft and too keen to be liked.

> *'I feel there is a lack of common sense about the management of this school. The SMT are so busy trying to be people pleasers and trying to be liked that they seem inept to me. It's all very well being consulted all the time, but they're paid to make the decisions, not me!'* (int6pt1)

Further, one PT felt that SMT would discipline certain staff (or pupils) with whom they felt safe to do so, but would not risk taking on more difficult staff (or pupils). This suggests that the SMT aimed to avoid conflict. The discipline policy for pupils was part of what was seen as soft (see below).

> *'The major weakness is that the Head Teacher hasn't got a strong enough personality. He's seen as not hard and therefore not supportive enough with regard to discipline. He's avoiding tough issues. He's not in school often enough. He does work late, but comes in late too. We need him on the ground during the full school day. The SMT are slow at making decisions because they say they want our opinions, but if the Region or Division recommends something then that'll be the way our school ends up going – they toe the party line... Yes, they're nice,*

amiable, sociable people, but they're too prepared to fall out with non-hasslers, not the tough people who need it. Managers have a duty to take on the hard stuff as well as easy.' (int6pt3)

The apparently negative views of the SMT provided above are compatible with the SMT acting according to HPS values, in that the SMT intend to be approachable, have positive relationships and hope to involve staff and pupils in the decision-making processes.

6.3.2 Quality of relationships

Central to HPS is the attention given to relationships between all members of the school community: teacher-teacher, pupil-pupil and teacher-pupil relationships.

6.3.2.1 Teacher-Teacher

Staff reported within and between departmental relationships as positive and stimulating. There were many examples of staff indicating that they enjoyed socialising with their colleagues outside of the school as well as in a work context. The general view is summarised by one teacher:

'The staff here are very supportive, there is very little backbiting. I love my job' (int6np1)

6.3.2.2 Teacher-Pupil

Bruce High was the only school in the sample to have a Student Council. Two elected pupils (by the pupils) from each year group were invited to regular meetings (two per term) to represent the pupil views about school decision-making. Both staff and pupils valued this. The Head Teacher saw many benefits of the council, including the goal of raising pupils' self-esteem.

> *'I think the student council works well in the school. It makes the pupils feel respected and feel we see them as responsible enough to have an input into our decisions. In return, on the whole, I think they act more responsibly. It's clear that some pupils suffer from a lack of confidence and low self-esteem. We hope that if we value them that may hopefully help them to start valuing themselves as people'* (int6smt3 / Head Teacher)

The Head Teacher made no attempt to conceal the fact that the school is located in an area of deprivation and associated this with a local drug culture. The staff knew that some pupils had experimented with drugs. One pupil was expelled for dealing drugs on school premises (the Researcher was present the day it happened; the Police were in the school and the Head Teacher confided in the Researcher about what was going on). The link between this issue and relationships was that the Head Teacher expressed the view that there was a no blame culture as teachers believed that the pupils were a product of their local area and parenting.

> *'The school is located in an area with a lot of poverty. One of the problems that goes hand in hand with poverty is drug dealing and drug use. Some of our pupils' parents may well be involved, it's part of their lives. We know that some pupils already have tried drugs, that's our reality. There's nothing to be gained by demonising the pupil, rather we have to understand it's a reflection of the environment the pupil lives in. If we alienate the pupil that will make it more likely that they'll keep taking drugs. If we stay calm and keep promoting things that are health promoting then perhaps the drug taking will not escalate. The constructive thing we can do is provide as good an education as possible as education will help some of them break out of the cycle of deprivation.'* (Head Teacher / int6smt3)

Surprisingly, the staff did not make any negative comments about the pupils at all. Instead, their views revealed their disappointment when pupils did not try hard enough to reach their potential, consistent with a strong caring ethos. Generally, the staff were extremely positive about their relationships with the pupils as is evident from the following quotations.

> *'I like working with pupils and still get a buzz from it. It's brilliant when you see pupils work and get where they want to be.'* (Head Teacher)

The teachers seemed to want to listen to the pupils and build relationships with them.

> *'I enjoy my contact with pupils. I like the type of pupils we've got here. The majority of them are good. It's especially good in S5 and S6 when you can work in smaller groups and listen properly to what they are saying. You get the opportunity to talk on a level that you don't get the chance to in other situations.'* (int6pt2)

Vertical Social Education was viewed as a benefit to the building of relationships.

> *'We've got a vertical social education. That is where the same teacher stays with the same class of about 20 pupils through all the school years. So, you can get to know a group of pupils better and develop stronger relationships with them during the whole time they are in the school.'* (int6np2)

The fact that the school was active in health promoting was also seen as supportive in developing relationships. It is also of note that staff used terms from the HPS concept such as 'hidden curriculum.'

> *'Because we've got lots of hidden curriculum on health, we form good relationships with pupils and we're able to make more of a personal input with pupils with problems. We can ask how they're getting on at home and show a natural interest. I think we're responsive to their needs'* (int6pt1)

The quote below reflects many of the comments from pupils who were positive about the student council. These pupils' views were consistent with the Head Teacher's views expressed above.

> *'It's good that we can elect people every year to represent us on the student council. I think it helps us understand government a bit better, we learn about that in Modern Studies and History. I think it makes us accept the decisions better and you can see that decisions can be quite hard to make sometimes.'* (int6boy1)

Again echoing the Head Teacher, the pupils also made comments about both the ease of obtaining drugs locally and the non-judgmental response to those who try them.

> *'We know the people who take drugs here, but we're not judgmental. Drugs are just really easy to get round here and people will be tempted to try them.'* (int6boy3)

Many of the comments from pupils revealed the qualities of teachers within the school that they appreciated. It is clear that pupils appreciated teachers who were not too strict in their enforcement of discipline.

> *'I enjoy classes where the teachers let you speak as long as you do a wee bit of work as well. P.E.'s like that and so is science when you have to do experiments.'* (int6boy3)

Pupils also raised the importance of laughter and its benefit to relationships.

> *'I like the teachers that can laugh with you and make jokes, but can be serious as well.' (int6girl3)*

Two pupils highlighted P.E. and Guidance as departments with teachers who are valued.

> *'I enjoy talking to PE teachers. Teachers are all right. You can say if you have a problem, you don't have to keep it to yourself. They'll listen to you and do something about it. The teachers are good.'* (int6girl2)

> *'My guidance teacher is nice. She listens well, is understanding and I can trust her.'* (int6girl5)

It is clear that most pupils thought very highly of their relationships with teachers.

> *'I'd talk to any teacher about any problem I had. Most of them are reasonable people.'* (int6boy1)

While most pupils had many positive comments about teacher-pupil relationships a minority were more critical in their views of teachers. For instance, one male pupil expressed the opinion that teachers treated pupils with different abilities differently; however, this is the same boy who indicated he could talk to the staff if he had any problems, so his view of relationships was not solely negative.

'In mixed ability classes, the teachers treat us like kids, but in credit classes they treat us like adults. I suppose they think that lower ability pupils are more likely to cause trouble.' (int6boy1)

Another boy was sceptical that teachers knew about life. He also felt that the teachers looked down on pupils, picked on them and that he could not talk to them.

'Teachers don't know very much about life, just what they read in books. Older teachers know even less about life...Teachers look down on you, you can't talk to them, they pick on you. Teachers always take other teachers point of view rather than a students' (int6boy3)

Another boy did not feel that some teachers could be trusted.

'You just can't trust some teachers. They'll talk in the classroom about you.' (int6boy4)

A girl described the characteristics of two teachers the pupils 'hated'. It should be noted, however, that the pupil is only referring to two teachers among a large staff. These teachers being the exception to the rule.

'There are two hated teachers in the school. They don't listen and have no time for anyone. They think they know best and don't want to listen to opinions. They always make example of pupils, get sarcastic and the pupils panic and get flustered.' (int6girl2)

A girl raised the issue of the teachers' 'attitude'; this resonates with the comments above about the teachers 'looking down' on pupils.

> *'Some teachers have an attitude like they're better than you. Like a primary school attitude - talking down to you.'* (int6girl6)

On balance, the pupils were more positive than negative about their relationships with teachers. This verifies to HPS theory, which emphasises the importance of quality of teacher-pupil relationships.

6.3.2.3 Pupil-Pupil

The majority of pupils saw having their friends around as one of the enjoyable aspects of school. There was one pupil who said that there was some 'cattiness' among the girls while another went so far as to say there was no bullying in the school.

> *'It's not a school with bullying'* (int6boy3)

The teachers didn't say very much about how the pupils got on with one another, but one teacher did say that he felt they needed social skills, as they didn't always treat each other very well.

6.3.3 Discipline

A school's policy on discipline can affect the quality of relationships, particularly between pupils and teachers. Relationships among staff can also be affected in terms of whether there is a consensus or not regarding how the school handle discipline issues.

Given its emphasis on good relationships, a HPS would endorse a policy that focuses on rewarding good behaviour as this has the potential to strengthen relationships.

The Head Teacher found issues of discipline challenging as he was not always sure how best to deal with extremely difficult pupils.

> *'We have a problem with discipline. Personally I blame it on a lack of insightful parenting. However, we are revising our discipline policy...I do not enjoy having to deal with discipline. Occasionally you're facing a fairly intractable problem with no solution and the old sanctions you'd have used like the belt are no longer options. The pupils can bring in problems that are related to problems in society and we don't always know how to deal with these pupils' needs. How do you cope with bizarre behaviour? There are few provisions of alternatives for us to follow. We used to find Remedial Departments useful, but now that has been watered down to learning support. It was good when more of these pupils could be dealt with in smaller groups and separately from other pupils as they can disrupt the learning of the rest of the class and that way they got more attention. Now the learning support teacher has to*

deal with them in the big class with the other pupils and that can be even more disrupting.' (Head Teacher / int6smt3)

The Head Teacher revealed the concepts behind a new Discipline policy, a policy consistent with HPS in that it aimed to strengthen relationships by rewarding positive behaviour.

'We've just started a new award system, the idea is that it may help to raise self-esteem among the pupils and improve discipline by focusing on the positive of good behaviour. Departments can nominate pupils for a number of reasons, for instance, they've worked hard, been industrious, shown distinction. So, while it can reward actual academic results, it can also recognise pupils for trying hard, even if the academic results do not reflect that. So far 180 certificates have been presented, some to pupils who normally receive nothing.' (Head Teacher / int6smt3)

One teacher remarked that the school had a better atmosphere due to the whole school policy on discipline and described how she motivated the pupils to behave in Art, by allowing a relaxed atmosphere that they liked.

'The whole school policy on discipline has led to a better atmosphere in school, though, as an art teacher, I'm lucky to have a more relaxed atmosphere in my classroom anyway. There's a lot of movement in Art with less need to be chained to a desk or have 100% concentration. I play music while the pupils are working. The pupils work, but it needn't

be in an uptight silent atmosphere. I use their liking of the relaxed atmosphere as a lever with pupils who would otherwise not behave as well. By and large, my strategy works well and I intend to keep it like that.' (int6pt1)

Another Principal Teacher unwittingly suggested there was a systematic attempt to reinforce the desired behaviour and not rise to undesired behaviour.

'We try and show pupils that health involves healthy respect. There may be aggression outside, but it's calm in here. We don't want heart attacks because they're better at aggression. We don't react when pupils behave badly to attract attention. Rather, we aim to react when pupils are being well behaved to reinforce the good behaviour.' (int6pt3)

Not all staff saw the new whole school 'positive' discipline policy as a good thing. One teacher strongly disagreed and felt that the system was not supportive and was weak.

'We're not getting the right amount of support centring around discipline. On a certain level discipline is not dealt with in ways people want. For instance, the Janitor is not supported in his attempts to keep the building intact. For example, if a pupil kicks a door or wall plaster, there is a lack of perceived disciplinary action. We're asking, 'What's going on?' We wonder if the pupils perceive the seriousness of their behaviour and how bad and unacceptable the incident is. Proper discipline just doesn't happen. The SMT seems inept and I don't feel

> *they've explained their policy. When Mr X* [an AHT] *retires, discipline will go down further. Who'll implement it? Not the HT! I feel there is a lack of common sense in this school.* (int6pt1)

Another teacher did not feel that the Discipline Policy felt 'concrete'. This suggests that HPS may be precariously dependent on particular foundations.

> *'There's a lack of anything concrete being done discipline wise. At the end of day that makes stress a bigger factor and then your problems look bigger.'* (int6pt5)

6.4 Conclusions

The interviewees' reports revealed that the school had a holistic view of health, extending to social and environmental issues. For instance, Bruce High had shaped the environment of the school to make it attractive, welcoming and easy to navigate. Bruce's practice was in line with its policy, with many interviewees describing a number of H.E. packages and events like the Health Fair and 'No Smoking Day.' A number of interviewees related how pupils had to dress as cigarettes or ashtrays to compete in sports (on 'No Smoking Day'). This was to symbolically demonstrate how smoking can slow one down. Staff and pupils were conscious of the school being a 'No Smoking Zone'. Beyond promoting healthy eating, discouraging smoking and promoting good relationships for pupils and staff, staff health was promoted by providing a relaxation room and encouraging sport at lunchtime. Much inter-departmental liaison and good

teamwork was described. There was a definite sense of the whole school being involved and certainly there were concrete examples of non-traditional subject areas being involved in HE and HP as well as the traditional subjects.

With regard to ethos, the SMT at Bruce communicated directly with all staff, soliciting feedback on decisions and policy development. The overwhelming impression was of good relationships between the different groups within the school, with only a couple of exceptions among staff and pupils. The school had a whole school discipline policy that rewarded positive behaviour; this was fairly recent, but teachers were broadly welcoming of this policy. Bruce was the only case study to have a student council whereby two pupils per year group (elected by their fellow pupils) had input into school decisions by sitting on the School Management Committee.

The school involved the local community in its HP activities, particularly by inviting a range of professionals to have input into the Health Fair. In addition, one of the SMT described how the school ran parent workshops where parents could meet and talk with SE teachers and browse through the education packages.

In conclusion, the data obtained in interviews with staff and pupils strongly suggest that Bruce approximated well to the HPS concept. There was triangulation and consistency among the interviewees' reports providing evidence that they were reporting a common reality and had good communication. For example, there was a widespread awareness (all levels of staff and pupils) of the school having a policy and commitment towards HE and HP.

7 Case study two: Jude High School

The second School to be explored is Jude High, a school that had significantly higher levels of pupils' smoking (26%) than Bruce High. The comparison between them is particularly interesting as both were based in the same predominantly working class town (see description of the town at the start of Chapter 6). Further, the schools were the most similar of any schools in the sample in terms of social background (32% for Jude High and 34% for Bruce High were drawn from a deprived background). The two schools were less than two miles apart, and like Bruce, Jude is located about two miles away from the city centre, but also has good transport links. The main difference between the schools is that Bruce High is non-denominational, while Jude High is denominational, Catholic.

Setting up of interviews at Jude High was challenging. It took many phone calls (approximately 10) before the contact member of staff who had agreed to organise the interviews with staff and pupils at the school called me back. It felt a little chaotic. On arriving at the school, it was not obvious where to find the reception office. The building looked shabby and rundown; there was no evidence of a welcome sign or plants and there was also little evidence of pupils' work, art or trophies on display.

In Jude High, 3 members of the senior management team (including the Head Teacher), 3 principal teachers, 4 non-promoted teachers, 6 boys and 6 girls were interviewed (see Methodology Chapter for selection of interviewees). As with the previous chapter, the views of the senior management team, principal teachers, non-promoted teachers and pupils (male and female) are considered in turn.

7.1 Physical condition of the school

Consistent with the Researcher's impression of the school, the poor physical condition of the school appeared to be a concern for all of the groups interviewed. In fact, no one said anything positive about the physical environment of the school, although the extent to which it featured in their accounts and its perceived impact varied between the different groups of respondents. The senior management said least of all the groups, but the Head Teacher did raise the poor environment and that money needed to be spent.

> *'I do not enjoy the poor physical condition of the school, money has to be spent on the condition of the school.'* (Head Teacher / int1smt1)

Staff were concerned and annoyed about health and safety impacts of the building for both themselves and the pupils. The Region was blamed for not spending money on the proper up-keep of the building. There was consistency between pupils (see below) and teachers in their accounts of the physical features of the school.

> *'As a result of faulty buildings maintenance it was discovered that there was water on the wires serving the computers. This is dangerous to the health of users...The computer department was not custom built. As a result, the lighting is inadequate and therefore not good for eyesight / eyestrain...Another concern I have is the level of radiation from the computer screens to which the children are being exposed. This is more of a concern to me in view of the type of*

computer that we have in the school. There is also inadequate ventilation. The windows leak water and there are broken tiles on the floor. All in all it is lucky no one has sued the school. The state of the school fabric could certainly be improved. For instance, there are broken asbestos tiles. People could die as a result of a building like this. There does not seem to be the usual pressure from the local authority for the building to comply with the normal building regulations. It is the only Catholic school in the area and it would be unpopular for it to be closed. It should, nevertheless, be gutted, but it seems that negligence on the part of the local authority is more cost effective.' (Int1np3)

'The school itself could be improved physically. The playground is very poor and the facilities are not even in place for the pupils to place rubbish in a bin...The toilets are unhygienic and some pupils do not want to use the toilets in the main school building.' (int1np4)

'Environment, for instance. There are noisy lights which take years to fix and buckets and puddles. It's draughty and all in all it's a cold building. The Region is not spending money. The windows don't fit and doors don't fit. The building's not wind and water tight. The paint is flaking off. The furniture is falling apart. The stairwell is dangerous when there is a leak because it's slippery... The cleaners work round staff on PAT time and that is noisy and intrusive...There is inadequate ventilation worsened by the fact that the windows don't open...It was a superb building and it still has potential. Recently a door fell on someone in P.E...We catch clothes on tables with unsmooth edges and it

costs money to replace the damaged clothes! We're expected to teach in any old environment. Who else works in this environment?' (int1pt3)

The boys talked about respect for school property and that its poor condition led to apathy.

'*Everyone sees the school as a dump. It is in bad condition physically.*' (int1boy2)

'*If the school was in a better condition they may find that the pupils would be more respectful of school property. The school environment leads to apathy.*' (int1boy1)

The girls were concerned about people slipping on floors and that the toilets were vandalised and unclean.

'*...the roof's leaking, people slip on the wet floor. It's cold. People just throw litter on the ground and don't use bins. People smoke in toilets which makes you choke and some people vandalise the toilets.*' (int1girl2)

'*...having to sneak into PE toilets 'cos they're the only clean toilets in the building. It leaves you in danger of getting lines. It's not fair that you get punished for wanting to use a clean toilet... There are leaking roofs, slippy floors and people laugh when you slip*' (int1girl4)

7.2 Health Promoting School

As with the previous chapter, the HPS framework has been split into two main components - health education (HE) and health promotion (HP) and ethos.

7.2.1 Health Education and Health Promotion

7.2.1.1 Accounts relating to health education policy

It was primarily members of the senior management team who discussed Jude High's health education policy. Their views triangulate with the results of the audit described earlier, in that there was no evidence of a systematic policy, or indeed action, relating to health education in place. None of the senior management team was anything other than critical about the current situation. All were reflexive about the challenges the school would have to face and decisions that would need to be made in order to take forward this area of school life. It was reported that even before policies could be written, a number of decisions would have to be taken about priorities for the school and their impact on use of time within the school. There was unresolved debate about whether a dedicated Personal and Social Education class would be a good idea.

> MH *'In what ways do you think your school is successful in the area of health promotion?'*
>
> *'It's not successful. I recognise that we have been hiding away from some of the issues of health education and HIV...Both the strengths and weaknesses have been with us for a while and there is a danger of not changing. We are all busy and caught up in the day to day stuff. Sometimes I have to wonder if the right*

issues are being prioritised...I still feel that the [Health Education] *Committee does not meet often enough and very often this is because other priorities get in the way.'* (Head Teacher / int1smt1)

Other members of the SMT echoed the Head Teacher's views. For example:

'I am not sure if there is a structured approach to health education...In the lower school there is not the same opportunity. The problem is where to timetable these subjects.' (int1smt2)

In relation to the specific issue of PSD, another SMT member commented:

'Some people think that the PSD (Personal and Social Development) class should not be a dedicated slot, but rather that these issues should be dealt with across the board in all classes. I think the problem with that is that there is no guarantee that teachers across the board will be committed enough to do this effectively. However, if you have a dedicated slot you can make sure the class is being taken by an appropriate person.' (int1smt3)

The sentiments of the Senior Management Team were echoed by some of their staff. The principal and non-promoted teachers appeared to be concerned about health education not being a priority within the school. The evidence they gave for this was the lack of a distinct social education class and health education not being on the school development plan. One teacher said that health education was a 'hot potato' and that is why so little was happening. In fact, health education was on the school development

plan as the HEDO was shown it as part of the audit. However, the fact that teachers did not know it was on the plan demonstrates a lack of communication within the school.

The views of the SMT were also evident in the comments of several teachers. One Principal Teacher was quite scathing about the school's commitment towards Health Education. The quotation suggested that Jude's low level of involvement in HE generally may be a consequence of its being Catholic.

> *'Health education is given lip service. It's slotted in at times convenient to school curriculum. Even where it is coherent, it's second place and everything else is seen as more important. Should be remit for AHT or DHT, but it's a hot potato, especially sex education due to conflict with Catholic Church, so no one will touch it. Need responsible and trained person... Curriculum demands national syllabus. In this school it's difficult to find the time do health related topics. However, the time constraint is given lip service. E.g. S1 sex education part left to end. If a teacher runs out of time they don't do it. Pupils are not prepared for the real world. It's as if AIDS doesn't exist.'* (int1pt1)

Another Principal Teacher noted the loss of a dedicated Social Education class, attributing this to lack of resources and training ('expertise').

> *'When I started in the school there was a distinct Social Education class. I think this disappeared because there were neither sufficient resources nor was there sufficient expertise.'* (int1np2)

Another teacher mentioned the lack of development plans for HE.

> *'Health education is not in any management development plan of the school. Other areas are being worked on at present and health education may come later...As mentioned already there is no actual course on the curriculum - no social development plan.'* (int1np4)

However, the Head Teacher made it clear that while the school was not yet successful in addressing Health Education, it was now trying to do something about the issue. Thus:

> *'It's not successful and we are now trying to do something about that [health education and health promotion].'* (Head Teacher / int1smt1)

Another member of senior management indicated that the school was looking for ways of making things more structured. Then, when asked to amplify, he said...

> *'We are looking at PE, Biology and Personal and Social Development in order that they can be made more aware of and more structured with regard to health promotion.'* (int1smt3)

7.2.2 Teacher accounts relating to what actually happened

Given the possibility of disparity between policy and practice, this section assesses what was actually happening in the school so that this can be compared to accounts of policy statements.

Beyond having Health on the School Development plan, the audit and senior managers indicated that there was no clear policy or structured action with regard to health education. However, the interviews provided evidence that some Health Education, albeit ad hoc, was happening in the school. All groups of staff reported some form of action. Whether pupils benefited or not may have depended on particular teachers. The departments with some health education and health promotion input mentioned by SMT and teaching staff were Biology, Home-Economics, P.E. and R.E. However, the Head Teacher mentioned only that:

> *'P.E. is dealing with health issues.'* (Head teacher / int1smt1)

Whilst this was not inaccurate, it emphasised the ad hoc nature of health education and lack of communication within the school, as there were a number of other departments with a relevant input.

After reflection, the Head Teacher revealed also that there were posters in the canteen about healthy eating. However, he recognised that even when such information was provided, a gulf could exist between knowledge and behaviour in the area of diet. He indicated that he would appreciate Catering Direct making more effort with the healthiness of options in the school canteen.

> *'We have given the pupils an awareness of healthier eating by hanging up healthy eating posters in the canteen. The problem is that although the children know the facts, they still don't always choose to eat healthily...I would like to*

see Catering Direct make more of an effort in the school canteen. What they are making is too commercial and not healthy.' (Head Teacher/int1smt1)

Finally, the Head Teacher revealed his own personal aim for the young people, namely empowerment.

'Personally, I really try to empower the children to make difficult decisions on their own.' (Head Teacher / int1smt1)

Another member of SMT also mentioned the posters in the canteen, but was unaware of what pupils chose to eat. Like the HT, he raised the issue of Catering Direct, expressing the view that standards had declined. It is also possible that staff in the school were using Catering Direct as an excuse for not doing more about pupils' diets.

'In the dining hall there are signs and posters promoting healthy eating, but what the pupils really eat I don't know... It [the food] certainly seemed to be better 10 years ago before Catering Direct.' (int1smt2)

This SMT member then indicated that there was a move towards developing structure in aspects of health education for a subgroup of pupils and that the school asked speakers to cover some topics.

'Health education is permeating Biology in a more specific way. There are upper school modules which pupils can do that would deal with aspects of health education in subjects such as PE and Home Economics. More than 16

pupils are doing this...Statutorily we have a doctor and nurses into the school once a week. They do things such as administer jags to the children. Medics see the pupils twice a year... We have speakers into the school such as the Police and speakers on drugs and alcohol...In S1&2 there are lessons in biology on health issues, part of that is dealt with by speakers.' (int1smt2)

Another member of SMT, who also saw the beginnings of HE structure, mentioned that the school used two packages ('Drugwise and Escape AIDS') and cited the involvement of the same subject areas as mentioned by the SMT member above. Strathclyde Regional Council had a policy that all schools had to implement Drugwise and Escape AIDS before the pupils reached the age of 16. Therefore, if the school solely implemented these packages they would be working to a minimum standard recommended by SRC policy.

'*ESCAPE-AIDS is being started which should help sex awareness and promote healthy safe living. We are also using Drugwise...We are also looking at PE, Biology and Personal and Social Development in order that these departments can be made more aware of each others' input and ultimately more structured with regard to health promotion.*' (int1smt3)

The other staff in the school did not talk about HE or HP as a whole school issue, but instead described in what ways their departmental curriculum was related to health. Starting with the PT from Modern Languages, she described how her subject improved social skills and respect for others.

> *'Modern languages facilitate mental health. We promote communicative competence. All pupils have to do some modern languages. Social interactive skills help them in day-to-day life with other people. We encourage an ethos of respect for each we hope that branches out beyond their French lessons. No-one laughs at each other's dialect. We also help promote a respect for multicultural issues.'*(int1pt2)

Equally, the Modern Studies PT described how his subject related to health.

> *'A lot of issues throughout our course [Modern Studies] are related to health and wellbeing at the level of the society. For instance, we look at policies on health in different societies.'* (Int1pt3)

The PT of Religious Education explained that issues such as birth control and contraception were taught within RE in the context of relationships and marriage.

> *'In RE we used to teach S5 & 6 pupils about relationships, marriage and things like birth control and contraception. However, as the SRC* [Strathclyde Regional Council] *insist that it is included at some point before the child reaches 16* [S5 & S6 pupils are older than 16 years and many do not stay on for S5 or S6.], *it is now dealt with in S4 within 'marriage and relationships'*. (int1pt1)

The PT of Religious Education also covered relaxation, claiming that this addition to his subject was due to him also having a Physical Education background.

'My own background in RE and PE lends itself to being more interested in Health Promotion than if I didn't have PE background. For example, I covered relaxation in RE and I would not have done that if I had no PE background. More so, both PE and R.E. teach health education for life. It's a long-term objective' (int1pt1)

A member of the Home Economics department provided detail on what was covered in their curriculum with regard to diet. She explained that Home Economics teachers were in an ideal position to promote health as they can gain the trust of pupils due to working in small groups which facilitate discussions. With older pupils they discussed alcohol, drugs and exercise.

'The Home Economics department teaches healthy eating and health to all pupils. We do not try to impose a diet on pupils, but rather try to make them aware of diet generally. For Standard Grade students we deal with diet for different groups of people who need particular food i.e. the elderly, ill etc. Cookery is reinforced and we emphasise the healthy side to it i.e. wholemeal foods, cutting down on fat, sugar and salt. There is an S2 unit on shopping which looks at labels to help pupils avoid unhealthy foods such as hidden sugar ...The Home Economics department is in a good position to deal with pupils in small groups, have discussions and gain their trust. It is a unique learning opportunity for the pupils. With older pupils we advise on the use of alcohol and drugs and exercise...The Home Economics department has so much to offer pupils such as teaching them practical skills like cooking which they are taught to at least a basic level for two years.' (int1np1)

A P.E. teacher outlined his department's contribution to Health Education and Health Promotion. His comments again highlight the ad hoc and informal nature of health promotion in Jude and, like his colleague from the Home Economics Department, there is a sense of the department promoting health beyond the strict physical education curriculum.

> *'As teachers, we always try to deal with issues that arise as caring adults. We also teach the pupils skills in order that they can maintain and develop health and fitness in later life. Not only do we promote and explain the benefits of physical activity both as part of PE and also in the pupils' free time, we also stress the importance of hygiene before and after such physical exercise - i.e. washing, use of deodorants etc...The school also organises extra curricular activities such as aerobics and we tell the pupils of the benefits of aerobic exercise...The members of the PE department do that naturally* [promote health] *and do not find that they have to make a conscious effort...I do try to educate the pupils on these matters* [promoting health] *on an informal basis as I have said already.'* (int1np4)

7.2.3 Pupil accounts of what is actually happening

Corresponding to the accounts of teachers, the pupils revealed that there was little systematic health education and health promotion in the school and again there was an impression of it being ad hoc. However, some pupils found the input of particular departments into health education useful.

For example, two boys indicated appreciation of PE.

> *'PE is good, we learn about it and get to do it. I'd like to learn more about the body, especially heart and lungs and how they put oxygen into the body. How smoking damages you inside so you're not as fit. I like participating and discussing videos.'* (int1boy2)

The other boy said that PE was the 'useful' subject for health, a view resonating with the HT's earlier comment that the PE department 'deals with Health Education'.

> *'The only useful things I have been taught have been through PE such as flexibility, fitness and physical stuff.'* (int1boy2)

The transcripts revealed that some girls were aware of and were happy that, healthy options were available at the school canteen. In terms of education on healthy eating, the only class mentioned at which it was taught was Home Economics. Girls indicated that they enjoyed what they were taught in Home Economics and enjoyed the practical aspects of it.

> *'You can get salads and sandwiches for lunch and also fruit and fruit juice. I take that...Home Economics topics on health are good. They make you more aware of what'll happen if you don't eat healthy food. We learn what's healthy for you and what's not. I enjoy learning about health in home economics. I want to learn how to look after myself. My friends and I like doing practical work where everyone in the class gets involved.'* (int1girl1)

'I think it's good the way we're taught that sugar isn't good for our teeth, salt is bad for the heart and fat makes you overweight.' (Int1girl5)

MH *'Where did you learn that?'*

'In Home Economics.' (Int1girl5)

The health education and health promotion the pupils had experienced was, however, reported to be unsatisfactory in terms of depth of content, continuity of teaching, facilities and size of the classes.

The quotation below expressed the ad hoc nature and the lack of interest among pupils for Health Education.

'Health education is taught poorly in the school. Classes are taken by different teachers, are irregular and few and far between. The majority of pupils are not interested and pay little attention [to health education].' (int1boy1)

Another boy found the classes too large (specifically in P.E.). He found drug education too prescriptive and felt that it was not deep enough to enable pupils to make their own choices. This is ironic given that one of the Head Teacher's personal aims was to empower the pupils to make their own decisions.

'I've not had much health education...At PE classes the numbers trying to take part at the same time are too large and there are limited facilities... There is some drug education in S2, but it only really tells us not to take drugs and to

> *refuse offers. It only really scratches the surface. It doesn't tell you what drugs do to you and doesn't enable you to make your own choice based on factual information. I don't think what I have been taught was useful and it didn't stop people taking drugs.'* (int1boy2)

One boy did not find the teachers suitable exemplars of health education and health promotion.

> *'I don't think it* [health education and health promotion] *is successful and there are too many fat and unfit people teaching it.'* (intboy3)

One girl did not find the school successful in health promotion for a number of reasons, including the lack of moral guidance, the lack of useful topics and sex education being purely about reproduction in Biology.

> *'I don't really think the school is successful in health promotion. Some topics are perhaps covered in Biology, but we are not given any guidance on what is right and wrong and what we should and shouldn't do... I haven't been taught anything particularly useful... The only sex education we get is 'reproduction' in Biology. A lot of people do not know the dangers involved... In other subjects such as physics we do not get anything like health education.'* (int1girl1)

These findings from pupils and staff regarding health education triangulate with the finding of the audit (described above) in that health education within Jude High School seemed to be at the early stages of being formalised into both the explicitly stated and

hidden curriculum. The audit did not pick up on the ad hoc teaching going on, probably because it was not formal and widely known about within the school.

7.3 Ethos

7.3.1 Management ethos

The Head Teacher and another member of the Senior Management Team reported a cohesive and inclusive atmosphere in their school.

> MH '*What do you enjoy about teaching in this school?*'
>
> '*We have shared values and there is a feeling of teamwork. For instance, if a member of staff is ill, a get well card is sent and the member of staff will get a visit.*' (Head Teacher / int1smt1)

> '*There is a good atmosphere and as a group we are all able to talk about things. The school management is open to new ideas and they and the staff work well together. Even if you are new to the school you are encouraged to participate.*' (int1smt2)

Despite these positive comments about the SMT, it was clear that one member of their team was not highly regarded, indicating a lack of solidarity and cohesion within the team.

> '*One less SMT would be beneficial! The savings in their salary could be used to have a nurse available in the school on a part time basis. We would have to look*

at the job description, but it would be a great help and give input to certain courses. It would also help the overall health in the school.' (int1smt2)

Indeed, the Head Teacher also suggested the need for a morale boost among staff. However, he attributed this to overwork and too few staff rather than management issues.

'The staff attendance record is not good and next year there will be even more work and less staff. The staff of the school could do with some kind of morale boost.' (Head Teacher / int1smt1)

7.3.2 Quality of relationships

7.3.2.1 Teacher-Teacher

The staff themselves had many comments that related to their professional relationships. The examples below describe views about communication with senior management, with each other and between departments.

There were some positive comments about SMT

'The SMT are approachable, generally through the PT. The PT also consults with the staff and then goes back to the SMT. This should be able to work with other subjects.' (int1np1)

In contrast, staff from both non-promoted and principal teacher groups mentioned feeling isolated and unsupported. For example, the PT of RE described isolation. He did not explicitly blame the SMT, but his use of the term 'Others' suggested a lack of general support.

> *'There's a sense of isolation, no one to talk to. I have sole responsibility for developing materials and setting up things. Others don't always see the time constraints.'* (int1pt1)

Another member of staff, who had suffered a long absence due to stress, attributed the cause of his stress to lack of support and teamwork and did, at least partially, blame SMT.

> *'This is hard to answer. I have never been to the SMT as I am not in a promoted post. It is the PT who goes to the SMT. However, from what I can tell, the SMT is behind the times and is stagnating. They are not dealing with important issues as far as the PE department is concerned. I don't know what is discussed at these meetings as there is no communication... There is no whole school policy and there is no social interaction between different departments. If you are having difficulties there is not really anyone to get help from. If there had been support when I was feeling under stress then I might not have been off work for three months. There is no sense of teaching as a team. There is no one to talk to or to turn to for help. It is bad that there is no sense of knowing everyone within the school. We are all individuals and not a team. There is no happiness and no sense of friendship among the teaching staff, which is sad. As a result, nobody*

really knows how others are getting on so there is no support for individuals... The school is so far behind that a lot of important changes have not been made. My PT tries to move the department forward, but most departments are against development. That is wrong given what I have said above.' (int1np4)

The examples above demonstrate that different staff can have very different experiences within the school. This may be due to the fact that Management formally communicated with Principal Teachers, but not with non-promoted staff. As a result, their experience might have been a reflection of how well their Principal Teacher kept them informed. Another factor may have been that Senior Management were only supportive of people they perceived to view them positively.

With regard to their peers, most teachers reported good relationships as an enjoyable aspect of their working life as the next two examples show.

'I enjoy the good staff, good relationships and good social life that comes with working in this school.' (int1pt3)

'I enjoy the opportunity to communicate and work with so many staff. There are lots of people from different and interesting backgrounds. This brings width and depth to discussions about issues.' (int1pt1)

7.3.2.2 Teacher-Pupil

The Head Teacher was positive about his work with pupils.

'I enjoy the pupils doing well and having more informal contact with the pupils as is possible, for example, around the school show.' (Head Teacher / int1smt1)

Many other staff used the word 'enjoy' in relation to both teaching and the pupils.

'I enjoy teaching and I enjoy the children.' (int1np1)

None of the teachers revealed anything negative about their relationships with pupils. The pupils, however, reflected a much more mixed set of responses about the quality of teacher pupil relationships. While the following quote describes a positive attitude towards teacher-pupil relations, it also suggests that relations may have been better for pupils who tried hard academically.

'The teachers help if you are willing to put in the work. If you, as a pupil, are casual then the teachers will teach you casually. The teachers will give you extra help if you work. The teachers are very polite and will not fob you off.' (int1boy1)

The majority of pupils were negative in their views of teachers. For example:

'I don't like teachers that don't pay attention when you talk to them, or worse, only pay attention so that they can tell other teachers in the school as well. I don't like when you know that a teacher doesn't really care or gives you much help.' (int1girl1)

A similar view again revealed negative views towards teachers.

> *'I hate the way teachers always get the better of you, even if you know you're in the right. Teachers will always take another teacher's word against yours... They don't give you much help. They just tell you that you should listen in class. Parents can't help with work and teachers can't be bothered...I'd never tell a male teacher anything personal as they're not very understanding and might treat it like a joke.'* (int1boy5)

This dislike of teachers was echoed by one of the girls too. She was particularly sensitive about sarcasm and public humiliation.

> *'There are lots of teachers I don't get on with.'*
>
> MH *'Why?'*
>
> *'Some of them are horrible people, their attitudes are so sarcastic. Then if you tell them something personal they'll deliberately start talking about it in a louder volume than you'd like just to embarrass you in front of your friends.'*
>
> (int1girl2)

7.3.2.3 Pupil-Pupil

With regard to the quality of pupil to pupil relationships, nothing was raised by any of the teaching staff. However, many pupils cited pupil-pupil friendships as one of the things they enjoyed about attending school.

'I enjoy my friends and the social life.' (int1boy1)

'I enjoy seeing most of my friends. I miss people that I haven't seen.' (int1girl1)

Some pupils suggested that there was a status hierarchy among pupils and they were aware of bullying.

'There is also a gap between pupils as there is a lot of ranking among pupils and that is off-putting.' (int1boy1)

'There are some rough people and I'm frightened to tread on their toes. I'm not a victim of bullying, but a bit annoyed.' (int1girl3)

7.3.3 Discipline

There was no evidence of a formal whole school 'Discipline Policy', as would be expected of a HPS. Perhaps related to this lack of policy, there did appear to be a discipline problem in the school. When asked how teachers responded to discipline issues, one teacher revealed that staff referred behaviour problems on to the Senior Management Team.

'Teachers are not expected to put up with bad behaviour and problems can be passed to the SMT.' (int1np3)

Most teachers did not enjoy the discipline dimension of their job. For instance,

> *'I do not enjoy the aspect of discipline because Home Economics is an active subject and I am often on the move around the room. It is difficult to make the pupils understand that for safety reasons they must remain in their seats or in a particular area. The pupils are sometimes careless with equipment and while there are technicians on hand, damaged items are not always replaced.'* (int1np1)

Two pupils did have positive comments to make about discipline in the school. The first attributed good behaviour to the strictness of the teachers.

> *'The teachers are quite strict so there's quite a high standard related to behaviour in the school.'* (int1girl5)

By contrast, the second pupil (who was also positive about teacher-pupil relationships above) felt that he could approach teachers about work due to them not being too strict. Perhaps teachers are less harsh with pupils who are work orientated. This would fit with the suggestion made above that teacher-pupil relationships were better with pupils who tried harder academically.

> *'I feel I could approach a teacher about a work problem. They're not so strict that you can't talk to them openly.'* (int1boy1)

A sense of injustice was prevalent in the views of several pupils about the way teaching staff handled discipline. In addition, the quotations from pupils suggest that their perception of 'justice', or lack thereof, in discipline was associated with the quality of their relationships with teachers.

> *'I don't like school.'*
>
> MH *'Why?'*
>
> *'The teachers are a bit much, like when someone did something wrong and others saw it, it wasn't fair 'cos' if you didn't tell on the other person you got suspended yourself. We don't like to grass on friends.'* (int1boy5)

Another pupil raised the issue of 'grassing' (naming the perpetrator of bad behaviour).

> *'I don't enjoy anything about school. I want to leave because some of the teachers have got the wrong way of teaching.'*
>
> MH *'What do you think is wrong with their way of teaching?'*
>
> *'Like Mr X. He's a bully. He asks people to grass and if they don't he holds them responsible for something they didn't do and gets their parent. Heavy man.'*
>
> MH *'What type of things do the pupils do that he's annoyed about?'*
>
> *'There's a lot of vandalism in fourth year.'* (int1girl6)

7.4 Conclusions

There was universal dissatisfaction with the physical environment of Jude High, which triangulated with the Researcher's observations of the school. There was no systematic

policy towards HE and HP. While health was on the school development plan, this was not widely known among staff and reports between interviewees are inconsistent. The HT admitted that other school priorities got in the way of developing HE and HP policies and he was concerned about this not changing. The school had no dedicated SE or PSD classes for pupils, although, according to several teachers, these classes used to exist.

Despite the lack of policy and SE classes, it was clear that some departments' core curricula were related to health. However, as core curricula are a statutory matter, Scotland wide, this does not suggest that Jude was adding value in this area. Nevertheless, it should be noted that PE and Home Economics did give an indication of working beyond the core curricula for health. It is possible that Jude staff felt the need to justify the lack of HE/PE in a whole school context by playing up their own (ad hoc) contribution. On balance, the school was generally working to the minimum requirements of curriculum or Regional recommendations (e.g. Escape-AIDS and Drugwise) for health, but pulled slightly beyond the minimum by PE and Home Economics. The only other evidence of Jude acting beyond the minimum was the healthy eating posters in the canteen and some healthy eating options (both other case study schools did that too). The staff did not believe the pupils ate healthily, despite the posters and a few healthy eating options and in that regard blamed Catering Direct. There was no sense of inter-departmental liaison and all interviewees only spoke of their own department's input. The Head Teacher did not cite any department's core curricula input to health except PE.

Regarding ethos, while the HT's account initially mentioned the cohesive nature of relationships among staff, he later referred to the need for a morale boost among staff, attributing this to overwork and understaffing rather than to management issues. The PTs and non-promoted staff groups provided mixed responses. Some seemed happy enough in the school while others described feeling isolated and unsupported. One member of staff, in particular, attributed his stress to lack of support and teamwork. SMT communicated to staff via the PTs. Accordingly, the impression of communication was most likely based on how well the PT communicated to his or her department rather than consistently across departments. Staff peer relationships appeared to be limited to each department rather than the whole school. Some of the pupils reported positive relationships with staff, but some did not (it was more mixed than at Bruce). There was a sense that relationships were more positive with academically able pupils and poorer with less able pupils. There was no formal Discipline Policy beyond referring difficult cases to SMT.

Although, parents were invited to view the Escape-AIDS package, there was no evidence of the school collaborating with the wider community over health beyond medical involvement in routine immunisation jabs (e.g. Rubella and TB).

The evidence presented above suggests that Jude did not approximate well to the HPS concept. Where the school was active, it was to a minimum standard required by the Education Department. There was mostly a sense of isolated endeavours by some Departments or individuals and lack of coherence or communication about these attempts. Quality of staff relationships tended to be department based rather than

extending across the whole school, while pupil-staff relations seemed more positive with more academically able pupils.

8 Case study three: Seaview High School

The third and final school to be explored as a case study is Seaview High, a school with 34% of pupils who reported smoking compared with Bruce High, the reference school, where only 8% reported smoking. The statistical analysis (see Chapter 4) indicated that Seaview and Bruce were the two schools with most dissimilar smoking profiles in the sample, after adjustment for social background, and therefore merit further investigation as case study schools. However, it is recognised that this comparison is complicated, as Seaview has a very different type of location from Bruce and Jude. While Bruce and Jude were both located in the same medium sized working class town (see Chapter 6), Seaview was based on an island with restricted ferry timetables, particularly in the winter, and had only a small town to support its modest island population. The small town was more affluent than the town that Bruce and Jude were located, as reflected in 19% of the pupils being drawn from deprived backgrounds (compared with over 30% for Bruce and Jude). A lot of work was related to the tourist industry and was therefore seasonal: farming was another source of employment. Others commuted to the mainland for work and some had chosen to retire to the island. The town hosted a modest number of shops, cafes, bars and restaurants. There were limited recreational facilities which included a small mobile library and a golf course. There was no cinema or sports centre (the school held the only sports facilities that the young people could use) and young people had to travel to the mainland for these resources. Young people tended to walk around in groups, visit each others' homes, attend extra-curricular activities at the school or sit in local chip / ice cream shop cafes for their recreation. As Seaview was the only secondary school on the island, located on the edge of the town, pupils' homes covered a larger geographical area than pupils of Bruce or Jude and pupils travelled

from all parts of the island to attend. Seaview was non-denominational. This case study will examine the evidence about school processes in order to determine the extent to which Seaview differed from Bruce in these respects.

The Researcher found setting up of interviews at Seaview straightforward. The school Heath Education Co-ordinator (HEC) was prompt to phone back whenever she left a message with school office staff. The time of arrival at the school was always extremely predictable as the school is located very close to the ferry terminal and whenever the Researcher visited the school, the ferries were very punctual. The Head Teacher generally met the Researcher briefly at the start of each visit to the school. A school 'welcome' tradition was to offer visitors a 'home-made' scone made by the Home Economics Department after (what was likely to be for most visitors) a long journey. The school reception was next to the main entrance to the school and display cabinets housed various trophies won by pupils attending the school. The school building was fairly small, as was the number of pupils and staff (the smallest in the sample), and that made the school easy to navigate. The school had an old 'traditional' building with a new extension. The new extension had picture windows allowing in a lot of light and making the most of the sea views. The décor in both the old and new sections of the school was not outstanding, but fine (certainly not noticeably shabby).

In Seaview High all of the requested 24 interviews were conducted: 4 members of the senior management team (including the Head Teacher), 4 principal teachers, 4 non-promoted teachers, 6 boys and 6 girls were interviewed.

As before, this chapter starts with the views of staff and pupils about the physical condition of their school as this provides a context within which their accounts of school processes may be evaluated.

8.1 Physical condition of the school

Only the Head Teacher raised issues related to the physical condition of the school, indicating that they sometimes had problems with litter and toilets left in a mess. To tackle these concerns the school had appointed an Environmental Health Officer and sponsored litter bins.

> *'We* [SMT] *intermittently get frustrated at the amount of litter in the school and the state the pupils leave the toilets in. We try and emphasise that hygiene is a personal social responsibility and happens to be health related! Last year we sponsored litter bins. We created a school Environmental Health Officer and he should feel comfortable to raise these issues with the pupils.'* (Head Teacher / int5smt2)

None of the other staff or pupils at Seaview mentioned the issue of the physical condition of the school. This was probably because it was neither shabby nor outstanding, and was just not a salient issue to the people using the building.

8.2 Health Promoting School

As with the previous two chapters, the framework has been split into two main components, health education (HE) and health promotion (HP) and ethos.

8.2.1 Health Education and Health Promotion

The views of the senior management team, principal teachers, non-promoted teachers and pupils will be considered in turn.

8.2.1.1 Accounts relating to health education policy

The Head Teacher, another member of SMT, three Principal Teachers and one non-promoted teacher discussed the issue of Seaview's health education policy. Other staff and pupils talked in concrete terms about what was (or was not) actually happening in the school rather than discussing policy. This may be because health education was not (yet) a high priority of the school and the school was not at the stage of taking on whole school issues. In other words, any new policy mentioned in the audit was so new and not disseminated to staff and pupils, that they may not have been aware of it. In fact the policy had been written in response to a school inspection and sounded as if it was written at the last minute, as the HT was aware that the Inspector expected to see a paper health policy.

> *'Health education and health promotion needs to be a bigger priority for the school. Currently, it's not a major whole school issue. As a school we're not yet taking on whole school issues. The problem's been where*

to find the time; everything is competing against everything else for time.' (Head Teacher / int5smt2)

MH *'But the audit mentioned that you had health education and health promotion priorities and targets.'*

'Mmm, yes that's true. To be honest we had a school inspection and the Inspector wanted to see paper details of various policies including health so we wrote one. However, we're buried in paper and through generating the policies we lost time to sit and have general discussions. Ironically, by developing the paper trail that the Inspector wanted which was intended to improve our communication we've actually got worse communication. His suggestion had the opposite effect to that intended. The volume of paper has also switched off some staff from issues and they're not as keen to volunteer as they were previously...That's not to say that I want to duck from our responsibilities. The social workers that visit the school have made us aware of health-related problems among the pupils and we hope to improve our performance.' (Head Teacher / int5smt2)

Another member of SMT was more positive that the school was working towards a wider health education curriculum and said he was actively encouraging liaison between departments which was a step towards making it a whole school issue. He acknowledged the school's PSE classes were too large for the teaching methodologies recommended by the current HE teaching packages.

'When I was P.T. of P.E. I negotiated an extra 12 periods for H.E.. That extra time allows us to expand the programme; I think we're moving towards a good curriculum. It's a lot of work because attitudes change slowly, so we're introducing the changes slowly... We used to have a health committee and a social education committee, but as good life skills are being advocated to promote health (like in Drugwise, Escape-AIDS and the bullying pack) the two committees are merged and now they're called the Personal and Social Education (PSE) committee... We're trying to encourage liaison between Social Education, P.E., Home Economics and Biology... One of our main problems is that the methodologies want small groups (say 15 max), but currently the PSE programme has 25-30 pupils as a form class.' (int5smt4)

One of the Principal Teachers was cynical that views on Health Education had been sought genuinely, believing instead that the decisions were already made, and asking him was just a paper exercise. The PT extended this view to a statement that school policies in general were not developed 'democratically'. In addition, he wasn't aware of the status of health education on the school development plan, indicating a different issue with communication. He was audited about his Department's input into health education, but didn't know how widespread the audit was and hadn't received feedback.

'I have passed on some views about HE, but it appears that they've been swept aside. The school wants to work within the framework of the Regional circulars, so, in effect, the agenda has already been set, the views you give are really just part of a paper exercise. I take part in the

Board of Studies, but it feels like token participation. It's the same story, well speaking for myself, the agenda is set and decisions made on a lot of things which should really be open to group discussion. This school does not create policy democratically!... I don't know if health education is part of the school development plan. All I know is that I was asked about any relevant contributions made by my Department. I don't know how many departments were asked and I've not received any feedback yet. I just know it made me feel there was yet another area within which I'm feeling pressurised to perform, I don't enjoy feeling overwhelmed and that feeling is getting worse.' (int5pt2)

Obviously unaware that the school had written a health education policy for the inspector's visit, the third principal teacher suggested that the school needed such a policy! This suggests communication problems within the school.

'We need a school policy about how to teach health education well and effectively.' (int5pt3)

A member of Computing Science did not know anything about health education in the school because although the school committees were intended to represent all departments his own department was not represented on any of the committees.

'I'm not a form teacher so I don't know what's happening with health education in the school. The little I do know is from what my children have told me as they are pupils at the school. The problem is that

committees develop school policy, but I'm from Computing Science and nobody from that department is on any of the committees. There's intended to be blanket coverage of all departments, but there is not.'
(int5np2)

These accounts triangulated with the audit findings that revealed that the school's audit (two separate audit processes) had not been disseminated.

The next section moves on from policy to explore teachers' and pupils' accounts of what was actually happening with regard to health education within the school.

8.2.2 Teacher accounts relating to what actually happened

The SMT interviews, like the audit, revealed that Health Education was being conducted in the school, particularly Drugwise, Escape-AIDS, SHAPE, & Skills for Adolescence (SFA). Only one attempt at Health Promotion (healthy eating) could be gleaned and it had been deemed unsuccessful due to tensions in the values being promoted and other school activities (e.g. soft drinks machines, see below).

'The audit helped us appreciate that various health education is going on across the school curriculum. Smoking is covered in general science. Drugwise and Escape-AIDS packages are used in PSD, I think in 2nd year. We were actually a pilot school for Escape-AIDS. We're experimenting in the introduction of sex education to S1 at the moment.'
(int5smt1)

The Head Teacher mentioned that the school used volunteer teachers from any department to teach PSD and highlighted the issue of class sizes being too large despite the fact that SMT had already attempted to make classes smaller. The Head Teacher also revealed that they had attempted to encourage healthy eating, but to no avail. The Head Teacher's discussion about their healthy eating initiative interestingly touched on 'hidden curricular' issues (though he didn't use that term) as it created a tension between fund raising associated with sweets' and soft drinks' machines and the diet the school was promoting.

> *'We use volunteers to teach PSD and tried to make the groups smaller though perhaps some think they're still too large. Anyway, we're trying hard to get them down to comfortable groups. The Guidance team is enthusiastic, they're a good team which works well, they're getting more involved in Health Education, they'll have a powerful input... We tried a healthy eating initiative, but it wasn't very successful. We learned that we need to work harder at co-ordinating it. There ended up being disputes about advocating healthy eating, but raising money by sweet and soft drink machines, so some felt we were giving mixed messages.'*
> (int5smt2)

The third member of SMT was also the Personal and Social Education Co-ordinator (called Health Education Co-ordinator in other schools). His views appeared the most forward looking regarding developing the PSE curriculum and encouraging interdepartmental liaison. (Though he didn't say it, interdepartmental liaison is a step

towards looking at issues in a whole school manner as recommended by the HPS concept). He was also slowly encouraging staff to accept the new life skills teaching methodologies recommended by the HE teaching packages. Finally, he was aware that one of the packages the school used (Drugwise) was getting out of date, suggesting an awareness of the importance of keeping the packages up-to-date.

> *'We're working hard to produce a health education programme. We think SFA* [Skills for Adolescence] *is a good programme and plan to use that to fill gaps in our current curriculum. We were involved in piloting Escape-AIDS, Drugwise and most recently the SHAPE package. It was the SHAPE package that prompted our curriculum audit. The piloting all happened one year after another and influenced our thinking.'*
> MH *'How did they influence your thinking?'*
> *'Well, previously we thought in a simple wellness/illness way, but these packages opened our eyes to wider issues like developing life-skills in the pupils. Some of the teachers are not always happy about the methodologies that these packages advocate as it's not the way they were taught to teach* [small groups and encouraging group discussion and participative learning], *so it takes time for them to be accepted by staff... Drugwise is getting out of date now.'* (int5smt3)

The last member of SMT interviewed talked about the beneficial visit to the school by a Youth Theatre group. The Youth Theatre group performed scenarios related to HIV / AIDS and relevant to Escape-AIDS. The actors were aged around 17, so not much older than the pupils, and the scenarios encouraged interaction with the pupils. This member

of SMT also mentioned the input of P.E. towards Health Education for pupils and commented that many staff themselves participated in sport at school.

> *'The HIV programme was successful with 4th years and the Youth Theatre group went down particularly well. The Youth Theatre visit was a great basis to start a course as it really gained the pupils' attention and made them interested in the issues. I think we have a successful S1 and S2 health education programme. In P.E. 12 periods are concerned with fitness in conjunction with a healthy lifestyle including talking about alcohol and smoking... Lots of staff take part in basketball, (use the) fitness' room and football.'* (int5smt4)

Most of the teachers told the Researcher about the packages and types of H.E. that the SMT had already revealed. However, the PT Home Economics and a member of the P.E. department gave more insight and detail about what was happening in the school. The former elaborated on the content of their courses to health, but also unpredictably revealed that they covered smoking, alcohol, drug use and pregnancy too. She personally organised visits to the school by 'Tampax' and the local District Nurse (involved in well women issues) to talk to the girls about menstruation and feminine hygiene. She also made it clear that she would be happy to have a bigger input into Health Education as she'd been trained in Health Studies. Finally, she was the only person interviewed who revealed that the school might experiment with some peer education by asking older pupils to run seminars on different aspects of health to slightly younger pupils.

'We are promoting health in the Home Economics Department. 1st and 2nd year course covers nutrition and health. Not only do they learn about diet, nutrition, but they pick up things to put into practice. By Standard Grade level we cover illness, eating disorders, heart disease, obesity and problems caused by lack of vitamins and nutrients. We also highlight smoking, alcohol abuse and drug use a little as these topics tend to be mentioned by pupils. Personal hygiene, personal health care and dental care are also covered. Pregnancy and childcare is covered in 5th and 6th year. Not as much a childcare module as health during pregnancy and health issues for pre-five children. Naturally, we discuss food poisoning! ...For every 2nd year I organise a visit by the Smith & Nephew 'Tampax' lady. She talks about body changes, menstruation, feminine hygiene. The District Nurse from the local hospital who helps to run the well woman clinic talked to 3rd and 4th year girls. She said some of the same things as the Tampax people, but she was more medical and she made it quite clear they could come up to her at any point to ask questions. She also told them a bit about contraception... I know that Social Education uses the Drugwise pack and covers smoking and alcohol too... P.E. covers health too... The school is piloting sex education for 1st years... I am involved in health promotion and would be pleased if I was required to make a bigger input, as I'm happy to be involved. I feel that I am fairly well equipped for health promotion as in college I did the health studies course. My health studies course covered a number of things such as sex, AIDS/HIV and drug abuse... Our HE co-ordinator is thinking of asking 12 students to lead seminars in health

issues, so we might have some peer education in the school if that happens.' (int5pt3)

A P.E. teacher also made a similar point. He revealed that the P.S.E. teachers rotated round classes teaching the packs or part of the packs that they were each most familiar with. The teaching he described appeared very factual rather than the recommended 'life skills' approach of which the SMT were aware. He then moved on to describe the association between P.E. and health. He also explained that P.E. staff tended to have good and informal relationships with pupils that could have beneficial consequences as P.E. staff saw pupils in informal settings due to extra-curricular activities and school trips. Perhaps related to the issue of informal settings, he revealed that he saw himself as a 'role model' for the pupils, suggesting he may have been acting as a mentor as well as a teacher. Finally, he mentioned that the P.E. department had invited the Red Cross to work with pupils in the area of lifesaving and resuscitation.

'My subject is PE, but I teach PSE too to S1s and S2s. In S1 we cover smoking and alcohol in S2. We are using the 'PSST' pack for alcohol and QED pack for smoking. The QED pack has a shocking documentary and the pupils certainly remember it! We tend to use team teaching, that is, we rotate round the classes teaching the bits of the packs that we know best. The topics have not been embarrassing so far! We try to give them a basis in the facts from which they can draw their own conclusions... In P.E. we test fitness based on the Eurofit test schedule battery and we have borrowed a lot of equipment from Ross House [Education Resource centre in Argyle and Clyde Health Board Area].

> *The Eurofit testing gets good feedback from pupils. The P.E. formal curriculum covers a lot of biology and the benefits of being physically fit and a non-smoker!... Obviously, P.E. teachers are seen as role models for physical fitness especially living on an island where pupils see you in the community as well as at school... some of the other staff use our gym facilities too and have made up some staff side teams like in football and basketball... We had the Red Cross visiting our department to talk to the pupils about resuscitation. The Red Cross demonstrated with dummies and meters then the pupils got to try resuscitating the dummies for themselves. This year we ran that section by ourselves. Lifesaving and resuscitation are good skills when you live so near the sea!'* (int5np3)

It is clear then that in contrast to the poorly articulated policy there was actually a lot happening in the school related to Health Education. However, there seemed to be duplication with smoking and alcohol covered by PSE (perhaps due to lack of communication), Home Economics and PE.

Three of the four PTs interviewed all had different concerns about how well health education was actually being received and implemented. One PT was concerned that debating sessions weren't working as well for other topics as they had for Escape AIDS.

> *'Debates haven't worked so well. We've tried them for the issues of stealing and drugs, but none of these have worked in the same way as Escape did. I'm not sure if we'll try them every year.'* (int5pt2)

Another PT felt that the classes were too big for life skills type classes.

> *'Thirty - too many for life skills teaching methodologies.'* (int5pt3)

A third PT was concerned that some of the courses (his example was sex education) were not being aligned better between departments due to lack of formal inter-departmental liaison.

> *'I discovered that the new 1st year sex education course was being run before the Science Department's section six course* [sex education component]. *I think it would have been more sensible to run our course first which would have been backed up by the other course. The fact the courses weren't more logically ordered is the fault of the SMT in not making it clear enough how the whole of health education is operating throughout the school. In future years we will align the two courses better. This all shows the need for more formal inter-departmental liaison.'* (int5pt4)

A P.E. teacher admitted that his department and Home Economics may have been duplicating their health education with regard to information on diet and moved on to say that the Health Education structure in the school was not logical, a view which resonated with that of one of the PTs (int5pt4) concerning sex education in P.S.E. being run in advance of the science department input. Together these quotations suggest a lack of glue between the Health Education components, but assumptions that things may start to coalesce.

'I don't know what Home Economics cover about dietary information. In a sense I don't even know all the things I don't know. All I know is what we do in P.E. and diet is covered in that. I suppose it is likely that we overlap with Home Economics. I think the structure of health education is not logical to anyone.' (int5np3)

Another teacher was concerned that the new sex education course was misguided in separating the genders. He was also concerned that the class sizes limited the capacity of staff to deal with the issues as sensitively as required.

'The S1 sex education course we are piloting is splitting the year group by sex. I don't think that should be permitted as it's potentially placing barriers that you may want to remove later on. Furthermore, the class sizes are too large for such a sensitive topic there's just too many pupils of different levels of maturity to handle properly in such big groups.' (int5np4)

8.2.3 Pupil accounts of what is actually happening

In general, the pupils accounts backed up the issues the teachers said had been covered in relation to health education. There appeared to be a genuine appreciation among pupils that the school was tackling the issue of AIDS (which is in agreement with the teachers' view that Escape AIDS and Youth Theatre went down well with pupils). One boy also liked the Youth Theatre very much because the actors were young and that helped him relate to them.

> *'It's good that school tackles AIDS education. We got sheets home for parents, as there was an option about taking part. We got a play about AIDS which was really good with young actors of 17ish, it's good they were young 'cos we could relate to them better. My parents thought it was a good idea. I find P.S.E interesting in general.'* (int5boy1)

Another boy added to this view by saying that he found the Youth Theatre play emotional (which is perhaps a big compliment coming from a West of Scotland teenage boy!). He also appreciated learning about it with his friends and hearing their opinions. He further enjoyed learning about alcohol and smoking too.

> *'The school let the people know about the issue of AIDS. A lot of people knew about it already, but appreciated the school bringing it into the open. The Youth Theatre play was great, interesting, emotional and made people think. It was good to learn about it with friends as we discussed it with each other and formed opinions with the people you know and live with; it's good to be able to do that... We learned about alcohol and smoking too and they were quite good fun to learn about too.'* (int5boy6)

A girl mentioned that they were taught about menstruation (and smoking) and expressed gratitude to teachers who gave detail and answered queries.

'A woman came to talk about periods in S1 and P.E. did a short course on smoking. We're lucky to have some good teachers that talk about everything in detail and answer questions.' (int5girl1)

Another girl was also positive as to her views on HE, identifying the school as the key source of information.

'We get medicals that are compulsory and we get jags as part of them. There's a health component in Home Economics about healthy eating, PE helps you learn about health too. There's nowhere else, but school to learn it. I liked the AIDS education. It was good and there should be even more of it... some of the pupils had vandalised the toilets and so the Head Teacher asked for volunteer pupils to paint them again. The volunteers could call it work experience.' (int5girl4)

A further girl talked about the health components of Biology and also mentioned HIV and needle sharing.

'In some bits of biology we get told about different parts of the body. I suppose that's related to health. They tell us about the lungs and heart and what damages them. We're also doing different foods and the energy they give you. In P.S.E. we did a project on HIV. There was a part on sharing needles.' (int5girl3)

However, not all of the pupils were so complimentary about Health Education. One girl seemed concerned that sex education, as covered in biology, was too clinical and distant from emotions. She thought she may have missed out on the emotions related to sex education as, being Catholic within the context of a non denominational school, she received R.E. instead of P.S.E. She also provided confirmation of the reasons why the school sometimes taught sex education separately by gender.

> *'Sex education in biology is too clinical and it's an older teacher. The Biology teacher lectures you and doesn't talk about emotions. It's about biology, not how you might feel about the other person. Social Education might have covered emotions, but I didn't get that because I'm Catholic so I get R.E. instead. The boys used to make fun of sex education in biology, but maybe they're better now. When we learned about sex they split the boys and girls because of the fun the boys were making.'* (int5girl2)

Finally, one girl believed that drug education teachers assumed the pupils were all 'guilty' of taking drugs and she did not appreciate that. If this perception was held more widely then it would not facilitate good pupil–teacher relationships, which are important to the HPS.

> *'Drug education is presented as if we are all guilty and wild. They should talk to people as a whole not just the ones they suspect of drug use.'* (int5girl4)

8.3 Ethos

8.3.1 Management ethos

It was apparent that the SMT communicated with staff before making decisions. However, all members of SMT had reservations about the effectiveness of communication with staff. The Head Teacher believed that there needed to be more communication, but felt a personal approach was needed rather than just overloading staff with more paper. He also mentioned his dislike of having to discipline staff and tried to do it sensitively. However, he mentioned the need to discipline staff arose in times of stress which suggests he reverted to crisis management rather than being proactive.

> *'We* [SMT] *consult with departments and individual teachers before we decide priorities for the year and set targets. We do take cognition of all comments and changes to draft policies are made on that basis... We realise that communication could be improved; we need more than the Friday newsletter. Perhaps we should circulate minutes of all meetings to all staff. Of course it needs a personal approach too, not just bits of paper all the time... We monitor and evaluate all departments' performance and then feed back to the departments in a way that reinforces the good practice... Sometimes when there is stress and there are too many things to be done at once, I sometimes have to give people a row, I don't particularly like that and try to do in a pleasant way.'*
>
> (Head Teacher / int5smt2)

Another member of SMT echoed the HT's concern about the limitations of paper communication. He also commented on the staff's exclusion from and lack of involvement in policies and that their first loyalty was to their department rather than the 'whole' school. His preference would be to become more 'whole' school orientated.

> *'Some staff don't have time to read all the paper that we send them and don't think that policies involve them. There is an ethos that the most important thing is their immediate department and subject and that the 'whole' school revolves around that rather than the opposite way. Personally, I think we need to move in a direction that the whole school is key and the departments' liaise and co-operate around that.'*
> (int5smt3)

8.3.2 Quality of relationships

8.3.2.1 Teacher-Teacher

The staff themselves had many comments relating to their professional relationships. The examples below illustrate views about communication with senior management, with each other and between departments.

Despite raising some issues about the way school policy was developed, staff were very positive when directly talking about the SMT. For instance, one PT described the way the SMT had weekly meetings with representatives of all departments and that each department had representatives on the management team (Board of Studies). What is described is very concrete and supportive of HPS.

> *'There is structure to allow staff to contribute to school policies. All departments meet weekly with a member of the SMT present. Each department elects one person to be on management team, so you can't, but say there is participation.'* (int5pt1)

Another PT described the way SMT supported her and encouraged her to participate in school initiatives.

> *'Personally, management has treated me quite well. I've been given help and encouragement to participate. The SMT keep us fairly well informed, they're approachable, they listen and give help where needed. I've been given back-up and encouraged when I've started something new... whenever I have any problems the staff and senior management have always been helpful.'* (int5pt3)

A further PT believed the school was democratic and that through the Board of Studies mechanism staff could contribute to decisions. However, his view that this was not 'just a rubber stamp' is not consistent with that of his colleague (see int5pt2 quotation in the Policy section).

> *'The school is democratic in that there are elected representative staff on the Board of Studies. Through that mechanism staff contribute to decisions, it's not just a rubber stamp. Every department has a representative on the board of studies. The Board's view can be communicated at the weekly departmental meetings.'* (int5pt4)

One non-promoted teacher was more than content with the SMT and, interestingly, compared them favourably with his previous school.

> *'I'm completely happy and received full support of the SMT in anything I've wanted to try and do. There's never been any area of contention. In fact, so far the management team here impresses me compared to my previous school. They're more approachable and friendly here and you can tell them about problems.'* (int5np3)

It is possible the lack of consistency in the reports between SMT and department accounts of policy were due to the fact that input into policy was via departmental representation on the Board of Studies suggesting that quality of communication depends on the quality of feed-back from that departmental representative. In any case, the SMT themselves seemed to be highly regarded whereas input into policy making and communication was not so favourably viewed even by the SMT themselves.

The majority of staff were positive about their peer relationships.

> *'The staff are also a "good team" and I find the staff atmosphere friendly and usually relaxed.'* (int5pt3)

These feelings were echoed by a non-promoted teacher who added that staff were supportive to one another and socialised together.

'I enjoy the feeling of support that exists within the members of staff, there is a feeling of working together, not one department against others, we're happy to do things for one another... we're close as a staff as we go on staff night outs. Being in PE helps as about a third of staff are involved in sports like football and basket ball.' (int5np3)

One non-promoted teacher, however, did not always feel supported, though the use of the word 'occasionally' suggested that in the main she did. Her view appeared to relate to the fact that she was finding some of her mixed ability classes challenging together with a change in policy, making it compulsory for pupils to continue modern languages until the end of S4 (approximately 16 years).

'Occasionally I feel unsupported in circumstances by other staff.' (int5np1)

Finally, the PT of Home Economics was quite upset about sexism, lack of understanding of her subject and being asked to fulfil stereotypical functions just because of the subject she teaches. A female pupil echoed her comments about sexism in the school (see 'int5girl1' in the next section).

'Being put down on occasions about being "Home Economics" Home Ecky jokes etc., stereotyped ideas, ignorance among other staff of what H.E. is about and many sexist comments, i.e. being asked to fill the urn for staff functions and buy gateaux because I am a Home Economics teacher!' (int5pt3)

8.3.2.2 Teacher-Pupil

The Head Teacher reported that he had good relationships with pupils.

> *'I enjoy working in the school because of the good relationship I have with pupils and the fact that I feel comfortable to talk to most of them about personal issues.'* (Head Teacher / int4smt2)

The HT's views were reflected in those expressed by two of the PTs.

> *'We can have good relationships with the kids, they're quite enjoyable to be with sometimes.'* (int5pt2)

Another PT found the good relations facilitated teaching.

> *'The pupils in general are friendly and pleasant which makes teaching much easier.'* (int5pt3)

A PT, like the modern language teacher (above), strongly disliked mixed ability teaching, as he believed that not all the pupils were getting adequate help from him. The concerns reflected by these two teachers could very likely lead to a negative impact on the quality of pupil-teacher relationships. However, his involvement in Guidance, with its holistic remit, compensated in some measure.

> *'I hate mixed ability teaching as I'm quite clear about the fact that I'm not giving all the kids in the class the help that they need. However, I'm involved in Guidance and from that point of view my job is terrific, there's a satisfaction in being the repository of a child's whole education, receiving a wider picture of a child's development than in the*

English classroom. You can follow pupils through school and into the world. Being the person who draws together strands of their education and pulls them together.' (int5pt4)

A P.E. teacher cited the benefit of relationships derived from his subject due to the informal contact obtained when working in an extra curricular context and by participating in school trips.

'Being a P.E. teacher I do have more informal contact with pupils through extra curricular activities, so you can get to know the pupils quite well and I believe they can talk to me about problems. It's good seeing them on trips as they're in a more relaxed natural environment.' (int5np3)

Another teacher aimed personally to develop positive relationships with the pupils and felt responsible for their well being. However, this teacher believed that the school was eroding relationships by being somewhat too authoritarian.

'The pupils are nice on the whole and that makes it easier to build up a rapport with them. I see myself as responsible in a general way to the well being of pupils. I aim to foster a co-operative atmosphere as it engenders a healthy social atmosphere. However, I think that sometimes this school's attitude in general to pupils is a bit too authoritarian. There are so many compulsion issues and I think less compulsion is better for relationships. For instance, we force them to wear uniform and take

certain subjects for many years whether they like them or not. All this does not help foster relationships as an exchange of views.' (int5np4)

Some pupils reported positive relationships with teachers. For example, one girl appreciated the majority of teachers' supportive qualities.

'Most teachers will listen to what you're saying, don't make you feel that you're in the way and understand what's going on and help you.' (int5girl1)

Another girl gave a similar view, particularly appreciating teachers' willingness to support pupils academically during school breaks.

'Some teachers offer extra help during lunch, most are good at their subject and are helpful and friendly. One teacher I can tell her anything. She's there to understand. I can trust her, as she's an open approachable person.' (int5girl5)

On the other hand, a range of views were expressed which were more negative. In particular, one boy believed he had been discriminated against in that he was capable of achieving a higher examination grade than teachers predicted.

'Some teachers' attitudes to different people aren't fair. Favouritism in marking schemes is terrible. I only got half a mark difference from credit people in my folio investigation at the end of term exam. I showed

> *an effort and I want to learn so why can't I be made credit* [more academic level of Scottish Education Department qualification] *too? I know I'm capable of getting more than they're letting me do. I feel a lot of pressure and worry about it all... I don't even bother talking to some teachers about it as they don't care about my problem or they're sarcastic all the time. I only talk to the ones that treat you as a person and are willing to help.'* (int5boy6)

The same girl that appreciated teachers offering academic support above (int5girl5) indicated that some staff worked to rule and would not go beyond what they have to do.

> *'Some teachers are unwilling to help if you need extra help as some are just here to do their job and that's about it, anything else is nothing to do with them. Some* [teachers] *are too strict or generally unfriendly.'* (int5girl5)

Finally, one girl (int5girl1) believed that there were many sexist teachers a view which resonated with the female PT comments about "Home Ecky" jokes reported earlier. She also reported sarcasm being used by teachers, which she deeply disliked. Worryingly, she raised the issue of finding it difficult to view teachers the same way should they get 'romantically' involved with one of the pupils. The Researcher believed this concern was a reflection of staff and pupils living within the same small island town.

8.3.2.3 Pupil-Pupil

Generally, the pupils mentioned that one of the things they most enjoyed about coming to school was seeing their friends. However, despite this there was some evidence of problems among pupils. For instance, one girl gave an example that indicated that negative peer pressure was dissuading her from studying, which indicates lack of cohesion among pupils. Good relationships among pupils are seen as desirable by HPS theory.

> *'First and 2nd years put you down by calling you a 'swat'. Not just 1st and 2nd years, I've been put down for it by other pupils too. The comments have affected me, now I don't work as much so that I will not get slagged* [local term for nasty verbal teasing which could overlap with bullying]*'* (int5girl2)

Another girl also raised the point that she did not like being the only 'intelligent' pupil in one of her classes, which suggests there may have been a culture against achievement among some pupils. She also mentioned the issues of cliques – presumably rather than the pupils all getting on with each other. Interestingly, she questions the term 'school', which is important as the HPS concept aims to work at a whole school level with cohesion between groups. Her comments suggest that Seaview is not working at that level.

> *'I don't like standard grade PE class as I am the only intelligent one in it and the others roll their eyes when I answer questions... The school is all crowds* [cliques]*, we're called a school, but it's really just a collection of different groups that don't mix well.'* (int5girl3)

Another girl also raised the issue of groups and their territories, echoing the lack of whole school cohesion.

> *'There are lots of groups of people in the school and one group tends to dislike the others. Most of the groups have territories and you're best to know not to go certain places if you don't belong with that group or you'll get a hard time.'*
>
> MH *'What type of hard time?'*
>
> *'If you're a girl you'll probably just get slagged, but sometimes the boys get beaten up.'*
>
> MH *'Does that happen within the school or outside?'*
>
> *'Both, but the boys are more likely to get beaten up outside the school. Inside they'll get warned off.'* (int5girl5)

Finally, a teacher discussed how mixed ability classes might amplify the divisions between pupils.

> *'One class I've got to teach has Higher and Module grade pupils in it together. The lower ability pupils get jealous of Higher Standard pupils. They also resent me giving my time to the Higher pupils, but the problem is that Module grade is a self assess course so it's intended to be less teacher intensive. The whole thing puts me in an awkward position, as I can't get them to do the same work, which magnifies the divide between them.'* (int5np1)

8.3.3 Discipline

Only two members of staff were positive about discipline, one of whom evaluated the issue as:

> *'No great discipline problem.'* (int5pt3)

One PT admitted a difference of opinion with SMT regarding discipline and felt the SMT had an old fashioned view harking back to the times of corporal punishment. This teacher believed incentives for good behaviour should be implemented, however the SMT were not in favour or this idea.

> *'I'm not always happy how we cope with discipline here. There's an older outlook from teachers that were used to the sanction of the belt. Well, we don't have the belt any more so we need other initiatives. I've suggested a reward for good behaviour scheme, but SMT are not in agreement with that.'* (int5pt1)

Another PT's response suggested that the reason behaviour was worse than in the past was due to pupils' domestic problems. He indicated disaffection with teaching.

> *'Teaching isn't what it used to be and I don't get the same out if it. I used to have a feeling that I'd done well. But now the pupils are more difficult, they're bringing domestic problems to school. Probably their*

misbehaviour is caused by the disruption of broken homes. No, it's not getting easier.' (int5pt2)

Finally, a modern language teacher implied that some of his challenges with discipline were because pupils were all forced to do modern languages up to 4th year (previously it was an option after S2).

'One class that needs behaviour support is now forced to do modern language up to 4th year, the pupils resent that and some are a pain in neck. Imagine a lot of pupils being bloody minded and messing around saying they can't do it [the language] *and it's a waste of time. I don't like indiscipline and end up getting stressed trying to keep order.'* (int5np1)

A non-promoted teacher went so far as to say that they 'hate' the constant need for discipline.

'What I hate about teaching is the constant disciplining that the pupils require.' (int5np2)

Another non-promoted teacher believed the pupils drove him to 'explode' before behaving. That teacher also felt 'paranoid' when their classes were misbehaving.

'I don't enjoy the need for discipline that there is in teaching. It makes you paranoid when you're not achieving it. Sometimes you see that you've become what you hate just to conform not to your own, but other

people's expectations. I mean the pupils force you to explode before they calm down, but I don't like exploding.' (int5np4)

Only one male pupil raised the issue of discipline. His view was more in accord with the teachers who claimed the school had a discipline problem. He talked about the fact that pupils can't learn 'if the class run riot'. He then went on to say that when a pupil behaved badly the teachers wouldn't let them forget it (for at least a day). This suggests giving attention to negative behaviour that may be hostage to fortune, as some pupils will be rewarded by attention whether positive or negative.

'How much you learn in school depends on your class. If the class run riot, then it's a waste of time. It really depends whether the class wants to learn or the class doesn't... If you do something wrong the teachers make it hang over into the rest of the day.' (int5boy5)

On balance, the evidence suggests that there were at least some discipline problems within the school and that the school lacked a discipline policy.

8.4 Conclusions

In Seaview, the physical environment was not a very salient issue for staff or pupils because it was acceptable and this was the only school that created the post of Environmental Health Officer to oversee initiatives like the sponsored litterbins. There was a Health Education Policy at Seaview, but the only staff who were aware of it were those in SMT, the HT admitting it was a paper policy written for the purpose of an

inspection and not yet disseminated, let alone implemented. Other groups of staff and pupils solely gave concrete examples of action. It was evident from the interviews that HE was not yet a high priority of the school and whole school issues were not being addressed. The school had PSE classes, teachers rotated round PSE classes, teaching the packs or part of packs that they are most familiar with. It is possible this helped the staff to feel more expert in the area they were teaching, but perhaps it made it harder for pupils to bond with a particular teacher. Like Jude, some teachers highlighted the link between their subject's core curricula and health. The only evidence of movement towards health promoting was staff being encouraged to join sporting teams and healthy eating posters in the dining room, though like Bruce, some felt a tension between encouraging healthy eating and having soft drinks machines to raise funds for the school.

Regarding ethos, it was apparent that the SMT communicated with staff on decisions via an elected member of staff from each department (this could be, but was not always, the PT). While it is positive that staff could elect someone they thought would communicate well, there is the possibility that when not chosen some PTs may have felt undermined and also those nominated staff may be taking on responsibilities not reflected in their salaries. The departmental representative system may explain the lack of staff knowledge about the HE policy (above), as feedback to all staff will depend on how thoroughly each departmental representative disseminates information. Generally, the SMT were well regarded and peer relations for the majority were positive. However, one female member of staff and one female pupil both reported experiencing sexism in the school. There was an indication of discipline problems within the school, with a hint that discipline was stricter for less academically able pupils (like Jude). There was no

formal discipline policy and, according to a member of staff, SMT were not in favour of a reward for good behaviour, but instead would prefer the return of corporal punishment. In combination, the examples of sexism and desire for corporal punishment suggest a machismo among SMT, which appeared to be alienating to some people (and perhaps groups) within the school. There was some evidence of bullying among pupils and a sense that there was an anti-academic achievement culture among pupils, both teachers and pupils provided evidence that this raised problems for mixed ability teaching,

There was no evidence that parents were involved in HE or HP in the school. The school did involve some groups from the wider community to provide an input in to HE, such as Youth Theatre Group and the Police.

In conclusion, the evidence presented above suggests that Seaview had made some movement towards becoming HPS, but still fell short of working as a whole school, establishing health promotion and creating a cohesive discipline policy.

The next chapter will compare the results of the three case studies.

9 Comparing the three case studies

The aim of this chapter is to assess the extent to which each of the three case study schools approximates the Health Promoting School concept. This involves assessing the evidence in relation to the components of the HPS (for more detail see Chapter 1). The components of HPS addressed by this study are:

- Physical condition of the school;
- HE with reference to policies, packages and practice;
- HP activities with reference to policies and practice;
- Ethos covering Head Teacher (HT) leadership, teacher involvement, communication (all categories of staff), teamwork (whole school versus individual departments), relationships between teachers, teacher-pupil, pupil-pupil and parental / community involvement.

The hypothesis is that Bruce High, the school with significantly lower rates of smoking, after adjustment for known predictors of smoking, approximates the HPS most closely, whereas Jude and Seaview approximate the HPS less closely and that this is related to their higher rates of smoking that Bruce.

9.1 Physical condition of the school

According to the HPS ideal, each school would be striving to make their physical environment as attractive as possible for staff and pupils.

All of the groups of staff and pupils interviewed at Jude High were concerned about the physical condition of the school; in fact, no one interviewed said anything positive about the physical condition. The list of concerns were wide ranging and included leaking roof, slippery floors (caused by water from the leaking roof), desks with rough edges that damage clothing, inadequate ventilation, broken asbestos tiles, concern about safety of electrical equipment due to leaking roof water, lack of rubbish bins, dirty toilets, ill fitting windows and doors (hence draftiness). Furthermore, some of the pupils said that the fact that the building was in such a poor state meant it was further disrespected which they associated with the dropping of litter and vandalism in, for instance, the school toilets. These views and concerns about the physical condition of Jude were concordant with the Researcher's view.

In contrast, at Seaview High, none of the staff (apart from the Head Teacher) nor pupils mentioned the issue of the physical condition of the school. This is consistent with the Researcher's view that the school was neither shabby nor outstanding. The Head Teacher was concerned about litter and messy toilets however, and the school was being proactive in tackling these issues and had appointed an Environmental Health Officer with a remit for these issues.

Bruce High was more like Seaview, with its physical condition not appearing to be a salient issue. However, in the case of Bruce a member of SMT talked about how the school had made an effort to create departmental logos and nameplates to make the school look brighter and to help visitors and new pupils find their way around. However, only one male pupil criticised the cleanliness of the school. This echoed the researcher's view.

While the evidence clearly shows that both Bruce and Seaview were more highly rated than Jude with regard to their physical conditions, the difference between Bruce and Seaview is harder to judge. It was not an important issue for either school and both were being proactive to make conditions even more positive. The Researcher's experience, while similar to staff and pupils, was that Bruce had a slightly more pleasant environment because of the effort made by the school to make the reception area welcoming.

9.2 Health Education

9.2.1 Policies

A HPS would have policies that indicate commitment to HE and that are disseminated to the whole school.

In Jude High there was no evidence of a systematic health education policy. In fact, the priorities for Health Education had not even been decided, one SMT viewing such priorities as a basis for future policy. Despite the audit revealing that health education was on Jude's school development plan, non-SMT staff in the school did not seem to be aware of that fact and some staff were concerned that health education was not a priority within the school.

Seaview High was further developed than Jude in that it did have a health education policy. However, the school was not yet working as a 'whole school' and not all staff were aware of the policy. Furthermore, the results of the audit had not yet been

disseminated. Staff seemed aware of the school's shortcomings and steps had actively been taken to co-ordinate health education as a whole school issue.

Bruce was the most advanced of the three schools in terms of policy. Not only did the school have a health education policy, but also staff and pupils appeared to be aware of it and the priority of health within the school. The HT believed the school had a health-promoting ethos, the only case study school where such a claim was made. Furthermore, during the interview the HT used the language of HPS. It was clear that the school was aiming to move beyond health education to health promotion for both pupils and staff. The school also had a discipline policy which teachers saw as complementary to the health education / promotion policy.

9.2.2 Packages

The HPS concept says very little about particular education packages. Nevertheless, schools that are prepared to go beyond their Regional Council's minimum recommendation can be viewed as making a stronger commitment to this aspect of pupils' education.

At the time of data collection, Strathclyde Regional Council's Education Department had a policy that schools in their region should implement Escape AIDS and Drugwise before the pupils were 16 years of age. The qualitative interviews revealed that Jude solely taught these HE packages, although they had not been picked up by the Audit, this inconsistency between the different methods is probably a reflection of poor communication at whole school level. Both Seaview and Bruce also adhered to the

policy, teaching Escape AIDS and Drugwise. In addition, both these schools also taught SHAPE and Skills for Adolescence and thus were more active in the area of Health Education.

9.2.3 Practice

This section aims to assess whether schools were actually implementing their policies. All three schools were doing more than their policies implied, although there was a continuum with Bruce being most active, followed by Seaview and Jude least active.

Jude's Health Education occurred in the context of Biology, Home Economics, P.E. and RE as there were no dedicated SE type classes. The rationale for this was that the core curriculum for these subjects was related to HE. In addition, the Police were invited in to the school to talk to pupils about Drugs and Alcohol (to complement the Drugwise package).

The pupils at Jude High tended to be critical about their Health Education, finding it unsatisfactory in terms of depth of content, continuity of teaching, facilities and class sizes they found too large.

At Seaview, the packages were taught by volunteer teachers within the context of Personal and Social Education. Furthermore, the Senior Management team had used the school budget to reduce class sizes for PSE, but there were still comments that the classes were too large for the teaching methods used when the school was encouraging 'life skills' active teaching methodologies.

The Home Economics and PE departments' core curriculum relationship to Health was recognised and the staff in these departments were enthusiastic and innovative in their role as health educators (and promoters). However, lack of liaison was evident by some duplication of their efforts. Likewise, lack of liaison was also an issue for school's sex education. The PSE section on sex education was being taught prior to the science department's section on that topic, staff themselves believed it would have been more sensible to co-ordinate their efforts and run the science department's input first.

The accounts of pupils at Seaview regarding the issues tackled in relation to health education were consistent with their teachers' views. There seemed to be a genuine appreciation among pupils that the school was tackling the issue of AIDS. In particular, the pupils found the Youth Theatre play about HIV/AIDS very beneficial. Similarly to Jude, some pupils found sex education too clinical and Catholic pupils claimed not be allowed to attend sex education and felt alienated by that decision (which was beyond the control of the school). Finally, some pupils were concerned about the depth, level of discussion, teaching material and embarrassment of teachers in the area of Health Education.

Only teachers who had attended training run by the Education Division taught Bruce's Health Education within the context of Social Education. The Health Education Co-ordinators had also attended training irrespective of whether they were active in teaching Social Education or not. Apart from knowledge, the training had focussed on 'active' learning methods aimed at involving the pupils in their SE classes. Bruce worked in a

more 'whole school' manner than Seaview and thus there was greater liaison between departments in the co-ordination of SE.

Some teachers at Bruce were concerned about the quality of HE teaching, which was blamed on lack of preparation time. While being generally positive about HE, the pupils' concerns about HE at Bruce were that it was not taken seriously due to it not being examined and in addition some pupils did not find the teachers 'expert' or credible when teaching HE. A barrier to Health Education was the social and cultural divide between pupils and staff, which were similar to the concerns at Seaview.

Both Seaview and Bruce were more active in the practice of HE than Jude. While Seaview and Bruce were broadly similar in approach, Bruce seemed to have greater liaison between departments.

9.3 Health Promotion

9.3.1 Policies

The HPS ideal would be to have policies that support the HPS concept and that are whole school policies.

Neither the audit nor interviews revealed any evidence of HP policy at Jude.

There was no sense of a whole school awareness of HP at Seaview although some staff reported that the school was aiming to promote a healthy diet and the PE department promoted staff health by encouraging them to become involved in sport.

Bruce's Head Teacher believed that the school had a Health Promoting 'ethos' of which the whole school was aware (reports from staff and pupils confirm that they were aware of this 'ethos'). The HP goals of the school were to actively nurture both staff and pupil wellbeing via a wide range of initiatives. Furthermore, the HT and staff at Bruce used the language of HPS suggesting they were familiar and comfortable with the concept.

9.3.2 Practice

There is a difference between policy and practice and this section evaluates the actual health promoting practice within the three schools. A fully operational HPS would be practicing health promotion that involved the whole school; which would be known about throughout the whole school and would be supported by both the core and hidden curriculum.

The only HP activity reported at Jude was healthy eating posters on the canteen wall, an activity undertaken by the other two schools.

At Seaview, the PE department's initiative to involve staff in sport was well received by all who mentioned it. A tension was reported between the attempt to promote a healthy diet and school fund raising sweets and soft drinks machines. This tension could be viewed as indicating support for HP, a reflection of staff's increased awareness of how different actions can support or undermine HP goals. There was no evidence of inter-departmental liaison in these two health promotion activities.

By contrast, a number of HP activities happened at Bruce. There was both an annual 'Health Fair' and 'No Smoking Day' for pupils. Beyond the 'No Smoking Day', the school was committed to being a 'No Smoking Zone'. As with Jude and Seaview, the school also had initiatives to encourage healthy diet which included posters advertising healthy food in the dining hall. However, Bruce went further than this, less healthy choices were inhibited by rules that pupils were not allowed to buy more than one can of fizzy drink or one packet of crisps in the dining hall in order that the rest of their money was spent on healthier options. In addition, the PTA had a fund-raising programme to provide an apple for every pupil at lunchtime. Bruce was the only school to have a student council and to have implemented a 'Record of Achievement' to formally reward pupils in a positive way (part of the Discipline Policy). The positive nature of the student council and 'Record of Achievement' was aimed amongst other objectives (such as sense of belonging and inclusiveness) to nurture pupils self-esteem and mental health.

Staff at Bruce were not only encouraged to participate in sport (like Seaview), but their wellbeing was supported by initiatives such as the staff relaxation room and the fact that the school was a 'no smoking zone'.

The pupils at Bruce provided many examples of school health promotion, which confirmed the staff position that a lot was happening in the school. They added to the information provided by the staff by explaining that P.E. showers could be used at lunchtime and that staff were sensitive to 'girls' problems'.

The key difference between Bruce and Seaview was the level of co-ordination and inter-departmental liaison that was happening in the school, exemplified by the number of

departments involved in the school 'Health Fair' and 'No Smoking Day'. Furthermore, Bruce was the school that most overtly nurtured staff health and well being.

9.4 Ethos

9.4.1 Head Teacher Leadership

Head Teacher leadership that is committed to their school being, or becoming, a health-promoting environment for both pupils and staff supports the HPS concept. Evidence is presented for each of the three schools to assess which best approximates that ideal.

While the Head Teacher at Jude started by saying he enjoyed 'shared values' and 'teamwork', he later disclosed that there was a need for a morale boost among staff, but rather than taking personal responsibility he attributed that to overwork and too few staff. Certainly, the lack of policy on either HE or HP did not suggest decisive or enthusiastic leadership with regard to the health of pupils.

Seaview did have a policy for HE and the Head Teacher had allocated some of the school funds to make class sizes in PSE smaller and this suggests his commitment to HE. There were still concerns at Seaview, the Head Teacher recognised that staff were not coping with the level of paper communication and intended to improve this. His interview implied that he avoided disciplining staff until a crisis

The Head Teacher at Bruce appeared very motivated to communicate with, involve, listen to and respond to staff. This was generally very well received with only two exceptions, involving teachers who believed the Head Teacher was paid to make

decisions and was involving staff too much. They saw him as a 'soft... people pleaser'. Given the fact that this was the case study school with the most comprehensive policy on HE and HP and had also achieved the most in these areas for both pupils and staff, it appears that the HT's style of leadership was both clear and supportive of health issues.

In terms of a continuum, Bruce had the strongest leadership, followed by Seaview due to their HE policy. Jude was last due to lack of concrete support for HE.

9.4.2 Teacher involvement and communication regarding decision-making

The HPS promotes the ideal that everybody should be able to contribute to the life of the school. Therefore, schools that involve their staff (and pupils) in communication and decision-making would best approximate the HPS.

In Jude, the SMT held formal meetings with PTs, but not other staff. A sense of being part of decisions therefore would depend on how the PT handled their responsibilities and the evidence suggested that the quality of experience varied from department to department.

In Seaview, there was a decision making 'Management Team' with whom the SMT had weekly meetings. This team included elected representatives from all departments. Like Jude, this has the potential for different experiences for different department members depending on the quality of their representatives. However, it could be considered advantageous for Seaview's staff that they were able to democratically elect the person

they thought would be a good representative rather than automatically give that responsibility to the PT as in Jude.

At Bruce, the first draft of all policies was circulated to all staff for comments and redrafted in light off all comments. Interviews indicated a potential weakness in this approach involved over communication via too much paperwork, but the advantage was that all staff definitely had offered to them the mechanism and chance to be involved.

Both Jude and Seaview had the potential for staff to be excluded from communication and decision-making depending on the quality of departmental representation, though Seaview was perhaps in a slightly stronger position by utilizing democratically elected representatives. Bruce was closest to the ideal of the HPS as all staff were definitely given the opportunity to be involved in every school policy.

Teamwork relies on communication and involvement and so it is logical to consider those dimensions next.

9.4.3 Teamwork

The HPS concept promotes the ideal of whole school involvement; therefore, a school with strong teamwork would be closest to HPS.

The non-SMT staff at Jude demonstrated concern about communication with senior management, with each other and between departments. Staff from both non-promoted and principal teacher groups mentioned feeling isolated (from SMT and peers),

unsupported and therefore not part of a team. Sickness absence was attributed to stress by one teacher. There were some positive comments about Senior Management in the school which suggested that different staff could have very different experiences or perceptions of management. This may have been due to the fact that Management formally communicated with Principal Teachers and not non-promoted staff. As a result, the experience of non-promoted staff may be a reflection of how well their PT kept them informed.

Similarly to Jude, staff at Seaview demonstrated concerns about communication with senior management, with each other and between departments. Despite these concerns, most staff provided a positive evaluation of management who were regarded as supportive, encouraging of participation and who backed staff up. There were weekly management meetings (with department representatives). The disjunction between some staff believing the school was democratic and some not believing this may lie in the fact that the SMT met with a representative of each department weekly to make decisions. Therefore, perceiving the school to be democratic would depend on the quality of feedback from individual departmental representatives and some were presumably better than others at involving, representing and feeding back to colleagues. One of the SMT felt that the loyalty of staff tended to lie with their department rather than the 'whole school' and perhaps this is related to the SMT style of liaising with departmental representatives rather than meeting regularly with all staff.

The interviews at Bruce revealed evidence of HE and HP that involved liaison between multiple departments and a sense of whole school awareness and cohesiveness towards HE and HP.

9.4.4 Quality of relationships

The HPS concept emphasises the importance of good relationships between groups within the school setting. Therefore, evidence of positive relationships in the accounts of staff and pupils demonstrates closeness to the HPS ideal.

9.4.4.1 Teacher-Teacher

In all three schools the majority of staff were positive about their peer relations stating that they gave the feeling of being part of a team, were friendly, relaxed, supportive and extended beyond school. However, the lack of support cited by a few staff members at both Jude and Seaview may indicate a bit less cohesion at these schools than at Bruce.

9.4.4.2 Teacher-Pupil

The staff at Jude were universally positive about their relationships with pupils. The pupils on the other hand reflected a much more mixed set of responses about the quality of teacher pupil relationships. The pupils' interviews suggested that relations were better for pupils who tried hard academically (it was not clear whether trying hard was the issue or actually achieving academically). Other pupils were cynical and found teachers sarcastic.

On the whole staff at Seaview believed they had good relationships with the pupils. However, three concerns were raised. One related to the challenges of teaching mixed ability classes whereby the teacher reported not being able to adequately help all of the pupils. The second was that there was a distinction between academic and non academic

pupils with regard to relationships with staff and discipline (best for academic pupils). The third was the concern that by sometimes being too authoritarian the school was eroding relationships between staff and pupils. Staff rotated round PSE classes and this may have detracted from building relationships.

Similarly to the staff at Seaview, many of Seaview's pupils reported positive relationships between staff and pupils, for instance, appreciation of extra help offered on subjects at lunchtime, expertise of staff, their helpfulness, friendliness, trust and appreciation. However, other comments raised concerns such as favouritism, working to rule by staff, sexism, sarcasm and potential romantic involvement between staff and pupils.

Both staff and pupils valued the Student Council at Bruce, which offered the opportunity for pupils to be involved in the school's decision-making processes. The staff were non-judgemental of pupils and saw them as a product of their local area and parenting. Pupils valued that attitude. The vertical SE system was reported as enhancing relationships.

Pupils provided examples of valuing teachers and could talk to them about problems. However, like the other two schools there was concern that teachers treated less academically pupils more harshly and there were a few teachers pupils disliked.

Generally, the staff in all schools seemed positive about pupils. However, pupils in all schools provided more mixed reports about teachers, Bruce appearing to have the edge over the other two schools due to its Student Council and vertical SE system.

9.4.4.3 Pupil-Pupil

The HPS endorses positive peer relations and no bullying as this supports pupils' self-esteem. In this respect, the findings demonstrated more similarity than difference across the case study schools. The majority of pupils from all three schools were mainly positive about their peer relations, citing them as one of the most enjoyable aspects of attending school.

In Jude, staff did not comment on the quality of pupil-pupil relationships, while a minority of pupils reported some bullying within the schools.

In Seaview, staff reported that lower ability pupils made jibes at more able pupils. This was attributed to jealousy and this concern was also the only negative point raised by pupils at Seaview. Pupils believed that the consequence of such jibes was that academically able pupils were less motivated to achieve because of negative evaluation by less able peers.

At Bruce, a teacher commented that pupils did not always treat each other well. Some pupils, however, made a point of saying there was no bullying, while others mentioned that there was some cattiness among the girls.

While the HPS goal of good peer relations and no bullying is important, the evidence from these case studies was that most peers got on well, but a minority created

problems. In the context of this study, this measure was not discriminating enough to be useful.

9.4.5 Parental / community involvement

Jude's audit revealed that they had run a parents' workshop about the Escape-AIDS package recommended by SRC.

There was no indication of parental involvement in HE or HP at Seaview.

Bruce had offered parents the opportunity to meet SE teachers and to browse the HE packages used by the school. Furthermore, the PTA showed its value for health by fundraising to provide apples for pupils at lunch-time.

Both Jude and Seaview invited community police to have an input in to drug education (as recommended by the Drugwise package). Bruce did this too. Bruce, however, went further by inviting a wide range of professionals to the 'Health Fair'.

On this dimension, Jude had involved parents more than Seaview. Bruce had involved parents the most and involved more types of health professionals than the other two schools. Therefore, Bruce was the more health promoting school again.

9.4.6 Discipline

Discipline is closely related to 'Teacher-Pupil' relationships as in all schools it seemed to be an indicator of the quality of these relationships. Given its emphasis on good

relationships, a HPS would endorse a policy that focuses on rewarding good behaviour as this has the potential to strengthen relationships.

There were reports of bad behaviour at Jude, but no evidence of a formal discipline policy. The teachers referred their discipline problems to SMT.

There were a number of reports that pupils at Seaview were frequently badly behaved. The informal discipline policy was reported to hark back to corporal punishment with SMT not in favour of rewarding good behaviour. Some staff did not agree with the SMT on the topic of how best to manage discipline.

Like the other two schools, bad behaviour was reported at Bruce and the Head Teacher admitted finding it a difficult issue to deal with. Unlike the other two schools, however, Bruce had developed a 'whole' school discipline policy based on rewarding good behaviour. Staff reported that they thought this fairly new initiative was making a positive difference to pupil behaviour.

9.5 Conclusions

In the Researcher's opinion, the dimensions or factors discussed above when taken together, create a greater influence on the overall culture of a school than might be anticipated by their individual parts (i.e. a synergy). A model based on the evidence presented in this thesis, will now be described. Ideally, Head Teacher leadership would support HE & HP and associated policy. This policy and Head Teacher endorsement should be communicated to the whole school, acting to flag the importance or value that

the school places in HE & HP. HE packages intended to positively influence pupils' attitudes, knowledge, life-skills and behaviour should be implemented. HP acting to produce a wider school environment (hidden curriculum) that supports the particular HP & HE goals of the schools should be in place. Positive relationships that lead to a sense of mutual respect and value, likely to foster self-esteem and motivation in both staff and pupils, should be fostered. Quality relationships may act to reduce alienation or rebellion that is associated with negative health behaviours and make it more likely that pupils and staff are receptive to HE & HP. Parents and the community should be involved in HP as that may facilitate cohesive HP messages between school, home and neighbourhoods. A discipline policy that communicates what is and is not acceptable behaviour, should consistently applied. The discipline policy should reward good behaviour and may facilitate positive relationships. Furthermore, by being clear and widely understood that, for instance, smoking is not acceptable, it much more likely that pupils' behaviour will monitored and this in itself may help reduce smoking rates.

In terms of culture, Jude is the weakest of the three schools due to having the poorest environment, lack of policy or priority for health and no sense of the priorities within health, no dedicated SE class, lack of whole school communication, challenges of morale among staff. Jude had many challenges to overcome on the path to becoming a HPS.

Seaview's environment was fine, there was a policy and priority for health, a dedicated PSE class (different teachers teaching different components), consistency between policy and practice (though some teachers are unaware of policy). However, Seaview

lacked, as did Jude, whole school communication and the school appeared to work as a collection of distinct departments rather than holistically.

Bruce seemed the most joined up culture with good environment, consistency between policy and practice (both reflecting a high priority for health). There was consistency between staff reports and staff and pupil reports regarding HE and HP, this reflecting Bruce's whole school approach. There was generally good staff and pupil morale, facilitated by involvement of pupils in decision-making via the pupil council.

The comparison between Bruce and Seaview was always visualised to be challenging due to their very differing locations. Bruce's key strengths over Seaview were its whole school approach to communication and involvement and higher levels of involvement of parents and professionals from the local community. On these dimensions, Bruce was on a different level and this may explain the differences in smoking rates between Bruce and Seaview. However, a cautionary note should be given to indicate that this study cannot rule out the possibility that smoking rates were further influenced by area effects beyond the school.

In conclusion, Jude appeared to have the weakest health promotion culture, Seaview the second and Bruce the strongest culture for health education and health promotion to flourish.

10 Discussion

The information generated by the Argyll & Clyde study allows a number of questions to be answered. Did the school processes associated with schools with added value and schools with lost value for health behaviour confirm the Health Promoting School (HPS) policy guidelines (see Chapter 1)? Similarly, are the processes compatible with those recommended for effective schools in respect of educational attainment (see Chapter 2)? Is there evidence for a model involving consistency, cohesion, constancy and control (Creemers, 1994) (see Chapter 2)? Did the data from different methodologies triangulate (this provides an indication of the robustness of the findings)?

The aim of this chapter is to draw together the results of the Argyll & Clyde study. The structure is in four sections and formulates some conclusions. First, an overview is given of the background to this study, which includes a reminder of the study context, the aims of the research and the methodologies used. The second section provides a summary of the results. The third considers the conclusions of the study and also discusses its limitations and suggestions for future research. The fourth and final section discusses the policy implications of this study.

10.1 Background

Chapter 1 described the context within which the data for this study were collected. In summary, the data were part of a wider initiative the Researcher was involved in between October 1991 and September 1993. The wider initiative was a research and development project arising out of a health and education partnership (Henderson,

Coggans, & Davies, 1993). The aim of the initiative was to evaluate 'Health and AIDS' education in both 'traditional' and 'health promoting school' contexts' (Scottish Health Education Group (SHEG) & Scottish Consultative Council on the Curriculum (SCCC), 1990). At the time of data collection, the HPS concept was at a much earlier stage, without policy encouragement from Local Education Authorities, Scottish Office Education Department (now Scottish Executive Education Department (SEED)) backing or financial support. While the intended outcomes of the HPS concept are to promote health and healthy lifestyles for young people, there is not unanimous agreement that the HPS will be successful and there is a lack of studies that meet the methodological standard used by research into 'school effects' on educational attainment (see Chapter 2). Two such studies were identified, but neither had detailed qualitative data to indicate the processes associated with added and lost value regarding pupils' health behaviour outcomes. The current study makes a contribution to addressing this gap in knowledge.

10.1.1 Aims

The aim of this study was threefold: first, to quantify and model 'school effects' on a range of pupils' health-related behaviours comprising current smoking, weekly alcohol drinking, ever tried drugs and recommended (by American Council of Sports Medicine) levels of physical activity; second, to assess whether the rank order for these (school level) health-related behaviour outcomes was associated with the result of an audit undertaken in each school; third, to select case study schools (two varying negatively and one varying positively from expected values) and analyse qualitative data. The purpose of the second and third aims was to assess the processes associated with 'school

effects' on pupils' health-related behaviours, triangulating data from different methodologies.

10.1.2 Methodologies

The study was cross-sectional and used a mix of quantitative and qualitative methodologies to establish whether school processes / characteristics were associated with quantitative outcomes. The quantitative survey provides evidence on health behaviours and associated 'school effects' (pupils surveyed were in S2, aged 13 and S4, aged 15). An audit (mixture of quantitative and qualitative data) was conducted in each school by the HEDO. Finally, the Researcher conducted semi-structured, qualitative interviews with 4 SMTs, 4 PTs, 4 non-promoted teachers, 6 male pupils and 6 female pupils (average age of pupils interviewed was 15 years) in each of the case study schools. The analytic strategy made use of triangulation between data collected using the different methodologies described above. The goal of the strategy was to assess whether the schools that most approximated HPS, as revealed by their Audit results and by the information provided by staff and pupils, were those with more favourable 'school effects' regarding the pupils' health behaviours. This analysis is one of the first attempts, in this field of study, to empirically test the Health Promoting School concept.

10.2 Summary of results

Chapter 4 examined the health behaviours reported by the young people in this study, namely, smoking, alcohol consumption, drugs and physical activity. The rates of the behaviours were similar (albeit a little higher in the case of smoking, drinking and drug use) than those found by comparable studies at the time (Balding, 1992a; Coggans,

Shewan, Henderson et al., 1991; Currie, Todd, & Wijckmans, 1993; West & Sweeting, 2002). The reason for this is probably because of the higher levels of deprivation in this sample compared to national levels.

The key goal of chapter 4, however, was to identify any 'school effects' on health behaviours and to use that data to select case study schools. The results showed no 'school effect' for drug-use or physical activity. This lack of 'school effect' for drug-use and physical activity may be due to lack of variation between the eight schools in this relatively small sample. In addition, physical activity is part of the core curriculum in all schools and perhaps this was associated with lack of variation (see also Limitations of this study). The 'school effect' for alcohol was weak and only one school was significantly different from the reference school. The strongest 'school effect' was for smoking where 5 schools had significantly higher levels of smoking than the reference school. The size of the 'school effect' for smoking was large, with pupils in one school (Seaview) having an odds ratio for smoking that was 11 times higher than that of the reference school (Bruce). Thus, of all the outcomes explored, smoking exhibited the most variation between schools.

The case study schools were selected on the basis of the 'school effect' for smoking. The schools selected were Bruce for added value and Seaview and Jude for lost value. The reason for selecting two schools with lost value was because the school with the most lost value (Seaview) was a rural, island school and also more affluent than Bruce, thereby posing problems for comparison. Jude was also significantly different from Bruce in terms of smoking rates, but had the advantage of being located in the same town and had similar level of deprivation among pupils.

Chapter 5 described the audit of HE and HP conducted by the Health Education Development Officer (HEDO) in all 8 schools. The audit divided into three components, preparatory behaviour (towards implementing HE or HP), communication (covering dissemination of information, involving outside agencies, parents and pupils) and action (covering reports of HE & HP activities). The 'action' component of the audit discriminated between schools with high and low smoking rates. Both Jude and Seaview had high pupil smoking rates and implemented very little health education or health promotion. By contrast, Bruce with a low smoking rate was highly active in both health education and health promotion.

Three case studies were presented to display the school processes / characteristics that allowed an evaluation of how well the schools approximated to the Health Promoting School concept. The dimensions were health education and health promotion with reference to policies, packages and practice; ethos covering HT leadership, teacher involvement, communication (all categories of staff), teamwork (whole school versus individual departments), relationships between teachers, teacher-pupil and pupil-pupil and parental/community involvement. In summary, chapter 9 concluded that Bruce performed best across all the areas explored in the case studies and that theoretically fits with its low smoking rate. Jude performed poorest across all but one of the areas (Jude had communicated with parents more than Seaview, but less than Jude), similarly fitting its high smoking rate. The third school, Seaview, sits between the other schools on a Health Promoting School continuum and as such does not so clearly explain its high smoking rate. Bruce's key strengths over Seaview were its whole school approach to communication and involvement and higher levels of involvement of parents and

professionals from the local community. In these dimensions, Bruce was on a different level and this probably explains the differences in smoking rates between Bruce and Seaview. However, it is important to note that this study cannot rule out the possibility that smoking rates are further influenced by area effects beyond the school (see section below on limitations of this study).

10.2.1 Triangulation

The principal advantage of using mixed methods is that it provides the opportunity to examine whether data from different methodologies (e.g. survey, audit or qualitative interview data) or types of participant (e.g. pupils versus teachers or SMT versus non-promoted staff) yielded information that is coherent and consistent.

While the audit and case studies broadly provided the same message about the three case study schools, it is clear that the audit was less sensitive in picking up the extent of action in each school. One area in particular demonstrated lack of fit, communication. It is clear from the case studies that Bruce High was particularly strong in communication and the audit did not reflect that strength. If the audit had better captured communication then triangulation would have been even better.

Bruce had the lowest smoking rate of any school in the sample, performed consistently well in the audit and was consistently impressive in the case study. Bruce's results are robust across the three methodologies and reports were consistent across pupils, teachers, PTs and SMT, suggesting that they were reporting on the same reality.

Jude's results were the poorest of all schools in terms of the audit, case studies and pupil outcomes (high rate of smoking), so like Bruce, Jude fits the HPS theory well. In addition and in contrast to Bruce, the case study reports across and between, teachers, PTs and SMT were inconsistent. Such inconsistency is interpreted as evidence of poor within school communication.

Seaview's performance in the audit and the results of the case study also displayed consistency and with respect to both is located between Jude and Bruce. This suggests that its smoking rate was higher than would be expected given its average performance. However, it should be noted that Seaview had barely moved on to health promoting and was not as active in health education as Bruce (message consistent across the audit and case studies), so it is possible this lower activity is part of the explanation for Seaview's high smoking rates. As described above, the within school communication was weaker than Bruce, as Seaview did not communicate (nor act) as a whole school, but rather worked as a cluster of departments. It is also possible that Seaview's location influenced pupils' smoking rates over and above that of the school.

On balance, triangulation does suggest that the findings of this study are robust across methodologies. Seaview sits least well in the relationship between school processes and pupil smoking. However, it was envisaged at the outset (see Chapter 4) that Seaview might represent a deviant case due to its very different type of location. Despite the Seaview results being less clear, there are still key ways in which Bruce performed more strongly than Seaview.

10.3 Conclusions

The audit indicated that while preparation for HP was useful, paradoxically there may be a danger of over-preparing with some schools not moving on to communicate their ideas or to actually take action. Bruce had an average score for preparation, but was the second highest school for taking action.

Although the audit did not highlight the strength of Bruce's communication, it was very clear from the case study that communication was very strong in the school. A general conclusion is that more information was gleaned from the semi-structured, face-to-face interviews than via the audit, although, the overall conclusions from the audit and case studies were similar. Of the three case-study schools Bruce was closest approximation to HPS concept, followed by Seaview, while Jude approximated poorly to the HPS concept. Seaview was the only school that did not sit well with the HPS theory, perhaps due to area effects.

Concepts of consistency, cohesion, constancy and control (Reynolds, Bollen, Creemers et al., 1996; Reynolds, Sammons, Stoll et al., 1996) are echoed in the findings of this thesis. The evidence of Bruce's coherence between accounts (see Chapter 6) supports consistency. Similarly, Bruce communicated and acted as a 'whole school' and thus demonstrated cohesion. Due to clear and well communicated policies relating to HE, PE and discipline it is also likely there was constancy on action and responses. Finally, due to the well received discipline policy, the accounts of both staff and pupils suggested that pupil behaviour was improving; so the school was the strongest in terms of control. Though Reynolds et al's concepts were designed to be related to academic attainment,

they also appear to have resonance for health behaviours. It is also apparent that the recommendations from the effective schools field and those made by HPS theory are very similar (West, Sweeting, & Leyland, 2004). The findings of this study suggest that schools that would be predicted to add value academically (after adjusting for pupil composition) are likely to be effective in terms of health behaviours and vice versa. This resonates with Aveyard et al.'s study (Aveyard, Markham, Lancashire et al., 2004). Aveyard et al. selected schools that added value to educational attainment after adjusting for pupil composition (labelled 'Authoritative' schools) and conversely lost value (labelled 'Laissez-faire' schools). The researchers found, as predicted, that 'Authoritative' schools had significantly lower rates of smoking than 'Laissez-faire' schools. Their results are compatible with the main conclusion from this study concerning the processes which make schools successful, albeit gleaned from a different approach.

This study was not designed to address the question of whether schools with added or lost value for health behaviours also added or lost value for academic outcomes. However, based on routinely collected data on schools' academic outcomes, at the time of the Argyll & Clyde study fieldwork, the three case study schools retain the same pattern. In terms of pupils achieving three Scottish Higher Grades or more in S5; the figures were Bruce 20%, Seaview 16% and Jude 11%. This cannot be explained by deprivation as Bruce was as deprived as Jude, and Seaview less deprived than either of the other schools.

A recent study (Gordon & Turner, 2003), also based in Scotland, is not consistent with the findings of the Argyll & Clyde and Aveyard et al.'s studies with respect to the

synergy in processes to achieve academic and health related goals. Gordon and Turner conducted 27 interviews with staff and pupils' focus groups in two similarly deprived schools that had high (Highacres School) and low rates (Lowlands School) of smoking. They concluded on the basis of their data from the two schools that health and education agendas had competing values and priorities and that this created tension in the context of limited resources. They acknowledge that Highacres and Lowlands may be extreme schools with most schools falling in the middle of the continuum. Their description of Highacres sounds authoritarian rather than 'authoritative' as recommended by 'school effects' on educational outcomes literature (although it achieved better academic success than Lowlands). It is possible that Highacre's emphasis on academic achievement in a manner not recommended by policy and the subsequent alienation of some less academic pupils, led to higher smoking rates. Gordon and Turner's study highlights the complexity of this area.

The Argyll & Clyde study highlighted an overlapping concern relating to academic and less academic pupils. In all three schools, more positive relationships were developed between staff and academic pupils. This suggests that HPS might work with academic pupils and potentially isolate less academic pupils who might smoke more. Research involving academic and less academic subgroups would be required to test this hypothesis. If this hypothesis is true, then schools would have to find alternative ways to make positive relationships with their less academic pupils.

10.3.1 Possible processes linking school ethos to health behaviour

On reflection of the processes that may be involved in linking school ethos to health behaviour four candidate factors have been considered: health education packages, pupils' involvement, pupils' self-esteem and pupils' reaction.

First, the evidence provided by this study for health education packages is weakest. Both Bruce and Seaview with significantly different outcomes for smoking taught exactly the same packages (see Chapter 9).

Second, the evidence provided suggests that pupil involvement is an important mechanism. Bruce was the only school in the sample that involved pupils in democratic decision making by having a pupil council. The process for that mechanism is posited to be that if pupils are democratically involved in school decision-making they are more likely to abide by the decisions. So, for instance, Bruce was democratically decided to be a no smoking zone and all the evidence suggests that the vast majority of pupils (and teachers) respected that decision and did not smoke.

Third, pupils' self-esteem may be part of the process. It is likely that pupil involvement enhances self-esteem as being respected and listened to is fundamental to establishing it. Likewise, Bruce's positive discipline policy and positive teacher-pupil relationships are also likely to enhance pupil self-esteem. The link between self-esteem and health behaviours, however, is complex as its effect is thought to be context and meaning specific, so while high self-esteem may be associated with lower smoking among 'conventional' pupils, this may not hold for all subgroups of pupils, such as 'socially isolated' or 'disaffected' pupils. Similarly, for 'peer orientated pupils' high self-esteem

may be associated with higher smoking if smoking is seen as 'cool' within that peer group (Glendinning, Hendry, & Shucksmith, 1995).

Fourth, the final process is pupil reaction, and this can be used to highlight how the mechanisms may work together. Pupil reaction refers to whether pupils want to accept or reject the school guidance on health behaviours such as smoking. In a school such as Bruce where pupils had been involved in decision-making and relationships between teachers and pupils were generally positive, then it was less likely that pupils would be 'disaffected' and rebellious, and more likely that pupils would accept the guidance provided. However, in schools, such as Jude and Seaview, which were less democratic and had less coherent and less positive discipline policies, it was possible that some pupils did the exact opposite of the guidance given by teachers by way of rebellion or reaction. This echoes work by Markham and Aveyard who presented a grid where they described four groups of pupils as 'committed, estranged, detached and alienated' with 'committed' pupils most likely to accept / hold the values of the school (similar concept to the 'conventional' pupils described above). The authors suggested that involving pupils in the school and weakening the boundaries between teachers and pupils would lower the tendency towards estrangement, detachment and alienation, and thereby enhance health outcomes (Markham & Aveyard, 2003). This theory is broadly compatible with the processes presented here.

10.3.2 Limitations of this study

This research on which this study was based was exploratory with limited time and money and this is associated with limitations to this study. The sample reflects the

geographical, denominational and social and economic characteristics of Argyll and Clyde Health Board Area. It is not representative at a national level, the sample containing a higher proportion of pupils from deprived backgrounds than would be found nationally. This means that caution must be exercised in generalising the findings of this study. However, given the results broadly fit empirically with theory in the area, it suggests that the results may be generalised beyond this study. Furthermore, there is a strong overlap with the findings of West et al. in that both studies found that quality of relationships, involvement of pupils and school ethos to be important factors (West, Sweeting, & Leyland, 2004). Although, West et al. measured these factors differently, via quantitative data, the qualitative data in this study are remarkably similar.

Ideally, more schools would have been involved in this study. However, West et al. and Aveyard et al.'s recently published work in this area, both based on larger samples, had compatible findings, with smoking showing a 'school effect' in both studies and the largest 'school effect' where more health behaviour outcomes were studied. In addition, West et al. found 'school effects' for drinking and drug-use, which suggests that a school effect from drug-use may have been found if this study had been larger (like West et al., this study found 'school effects' for drinking), though the difference in findings for drug-use could also reflect a temporal difference as West et al.'s study was conducted 10 years later. It is possible that the drug-use outcome is linked more closely to 'small area' effects (for instance, full postcode area) rather than school, so for instance, pupils living in similar small areas across schools may have been more similar than pupils living in different types of small areas within schools. It is more difficult to comment on physical activity, to the author's knowledge, it has not been studied as a 'school effect' previously. It is possible that because Physical Education is part of

schools' core curriculum and is examinable, that there is little variation between schools, or perhaps there was just not enough variation in this sample. This can only be answered by a larger sample and perhaps a different method of measuring physical activity.

The next section presents further possible future directions for research on 'school effects'. One of these directions is to explore the relationship between 'school effects' and 'small area effects', which was beyond the scope of the Argyll and Clyde study.

10.3.3 Future research

For the three case study schools both the audit and interview data showed an inverse relationship between smoking rates and levels of Health Education (HE) and Health Promotion (HP) activity (see Chapters 5 and 9). The interview data were more sensitive in detecting activity than the audit for these three schools, but the order was retained. However, post hoc examination of Figure 5-3 (see Chapter 5) indicates that School 4 may be an exceptional (negative) case, as it had a low rate of smoking, not significantly different from Bruce's rate, but according to the audit also had low levels of HE and HP activity. It is not clear whether the audit was particularly unsuccessful for School 4 or whether there is an alternative explanation for its low smoking rate. This limitation could be clarified in the future by extending the research to include School 4 as a further case study. However, in order to help clarify the issue within this thesis, an overview of School 4 is presented below.

School 4 was the most deprived school in the sample (45% of pupils from deprived backgrounds) and located in a town with high rates of unemployment and known for alcohol and drug problems. Despite being a fairly large town, the town had no cinema and limited sporting facilities, although there was a swimming pool and ice-rink. The town has good transport infrastructure linking it to surrounding towns and cities, and there was a good range of shops. The school itself was welcoming, made attractive with pupils' art work, welcome signs and was easy to navigate. The school had among the smallest number of pupils in the sample, and the accommodation and staff-pupil ratio was generous. School 4 was a 'community school' meaning that it shared its facilities with the local community. For instance, the school offered food and nutrition and sports classes to parents and other members of the local community.

The Senior Management Team of School 4 aimed to be democratic. However, similarly to Jude they met with Principal Teachers rather than as a whole staff, and so, depending on which department teachers belonged to there were conflicting reports about being able to participate in the management of the school. There were behavioural and discipline problems experienced by teachers: however, the consensus was that this reflected the home backgrounds of the pupils and while finding disruptive behaviour wearing it was clear that the staff tried very hard not to alienate the pupils but rather aimed to instil a sense of worth in the pupils. Over and above the teaching of Escape-AIDS and visit from the Youth Touring Company (theatre group that presented a play on AIDS and then interacted with pupils) picked up by the audit, the interview data revealed that the school also taught Skills for Adolescence, Drug Wise 12 -14, Action on Bullying (a support pack for schools) and the guidance team tried to promote life-skills to support healthy lifestyles. The Researcher believes that the strength of School 4

was its attempt by staff to know and respond to the pupils according to their individual needs. Many pupil and teacher reports described extra teaching support or health topics being provided in a caring one-to-one manner. A couple of years before the Researcher visited the school this was 'formally' extended to a school nurse 'drop in' centre for pupils and staff to offer confidential advice on health issues and counselling. There was a strong sense that staff went out of their way to be approachable to the pupils and that the pupils found them approachable. In the sense that the school weakened the boundaries between the school and the outside world and the boundaries between teachers and pupils, this case study resonated with theory developed by Markham and Aveyard (2003) relating to health promoting schools. This theory suggests that by weakening boundaries (school and outside world, teachers and pupils, between pupils and between subjects) and evolving democratic schools with positive interactions (to, for instance, promote understanding of collective action), there may be less for HE in its current form. At first sight of the low action score in the audit, the Researcher hypothesised that School 4 may have succeeded due to the mechanisms described by Markham and Aveyard. Indeed, the weakening of boundaries in School 4 does support this mechanism though there was scope to weaken the boundaries further, for instance, by operating a pupils' council as did Bruce High. However, there was more formal HE in School 4 than detected by the audit, so in part School 4's appearance as a negative case in Figure 5-3 was due to the limitations of the audit. A further extension to the research that could be undertaken in the future to address this issue would be the information on HE & HP detected in the one-to-one interviews being incorporated into the audit.

Future research will also be able to explore whether 'school effects' impact differentially on both genders. To the author's knowledge, she and colleagues are the first to explore 'school effects' on smoking separately by each gender. This analysis is based on data from the SHARE study (more information on the SHARE study is available from the World Wide Web, the URL is http://www.msoc-mrc.gla.ac.uk/share/SHARE.html). The analysis was based on a sample of 5,092 age 16 pupils, surveyed in 1998 and 1999 (*SHARE* study had two cohorts), the data weighted to retain the representativeness of the sample at baseline collected when pupils were 14 years. The findings indicate that 'school effects' on smoking are differential for boys and girls, the 'school effects' being larger for boys at age 16. In terms of explaining the 'school effects' the processes identified were compatible with the work of West et al. and those described in this thesis (Henderson, Butcher, Wight, Williamson, & Raab, submitted).

The SHARE dataset has also been used to explore 'school effects' on sexual behaviour, the results again indicating that school level variance differed for boys and girls. However, while showing a reduction in school level variance when quality of relationships were included in the model, the analysis concluded that the variance was more attributable to area effects (Henderson, Butcher, Wight et al., submitted). A subsequent analysis (Butcher, Henderson, & Raab, in preparation) has shown the school level variance became insignificant when small area statistics were entered.

The analysis using the SHARE dataset implies that future 'school effects' research should look at the school level variance separately by gender. Such an approach may be able to identify school processes with more impact on boys, more impact for girls and

those of equal importance to both genders. This could be undertaken by exploring the characteristics of schools that show significant 'school effects' for girls, but not boys and vice versa. Identifying the import of processes by gender would allow policy to become more refined. Beyond this, it may eventually become possible to identify the school processes that are critical for other subgroups of pupils (those most likely to truant etc.).

With respect to future research it is recommended to develop longitudinal studies and ideally, follow pupils from primary to secondary education. This can allow the impact of associated primary schools to be built into research on secondary schools. Similarly, longitudinal work allows adjustment for prior behaviour. It is also the case, given the importance of family influences, that it would be helpful to independently collect data from parents in a way that parent data could be linked to the data of their child(ren). This linked data would enable the level of agreement between the two sets of reports on a number of dimensions including parental health behaviours, extending the work of (West, Sweeting, & Ecob, 1999) beyond smoking behaviour. This would also apply to reports of family dynamics. Furthermore, it would be interesting to assess the impact of increased partnership between schools and parents and the impact of health and / or parenting interventions for parents.

10.4 Policy Implications

This research suggests that the current policy of supporting all schools in Scotland towards HPS is likely to be beneficial for health behaviours. Given evidence of overlap in school processes that lead to added value (after adjustment for pupil composition) for

both educational and health behaviour outcomes, it may be that this policy has the added benefit of increasing academic performance. Further research is required to explore how best to support schools' development towards HPS or school effectiveness. Schools with an academic focus may currently not be motivated to change their practice, as they may believe the time taken to do so would be to the detriment of their academic goals. This belief may be mistaken.

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Appendix One

HEALTH BEHAVIOUR QUESTIONNAIRE FOR S4*

THIS IS CONFIDENTIAL

Answers to all the questions are completely confidential.

No names are involved. Answers will not be seen by the school or your family. So, you can be honest about how you feel and what you think.

Please read the instructions carefully.

If you are not sure how to answer put your hand up.

If you would rather not answer some of the questions in the questionnaire, then leave these questions blank.

*Questions not asked of S2 pupils are marked on the questionnaire with #

ABOUT YOURSELF

1. What is your age in years? _____

2. When will you leave school? Please tick one box.

As soon as you are age 16	☐
After "O" or Standard Grades or S4	☐
After Highers or S5	☐
After sixth year	☐

3. What sex are you? are you:

Male	☐
Female	☐

4. Which adults do you stay with at home?
(*Please tick **all that apply***)

my mother	☐
my father	☐
my step-mother	☐
my step-father	☐
my grandmother	☐
my grandfather	☐
another woman who is not my mum	☐
another man who is not my dad	☐

5. If he lives at home with you, what sort of job does your father, stepfather or male guardian have?
If he does not have a job write "none".

Please describe what your father, stepfather, male guardian normally does at work. (if he does not have a job just now, please write what he does when he is working).

6. If she lives at home with you, what sort of job does your mother, stepmother, female guardian have?
If she does not have a job write "none".

Please describe what your mother, stepmother, female guardian normally does at work. (if she does not have a job just now, please write what she does when she is working).

SCHOOL AND HEALTH

7. Please indicate how much you agree or disagree with the following statements.

(Please tick one box per line)	**Strongly agree**	**Agree**	**Don't know (?)**	**Disagree**	**Strongly disagree**
Normally I like coming to school	❐	❐	❐	❐	❐
I find school a friendly place to be	❐	❐	❐	❐	❐
I feel school is largely a waste of time	❐	❐	❐	❐	❐
The only good thing about school is P.E.	❐	❐	❐	❐	❐
Schoolwork is generally interesting	❐	❐	❐	❐	❐
I think homework is a bore	❐	❐	❐	❐	❐
I never take schoolwork seriously	❐	❐	❐	❐	❐
The best thing about school is having a laugh with friends	❐	❐	❐	❐	❐
If I get the chance to dog school I do	❐	❐	❐	❐	❐
I feel a sense of belonging when I am at school	❐	❐	❐	❐	❐

8. Have any teachers in your school ever asked your opinion (views) about any of the following topics? Please tick the appropriate box for each statement.

(Please tick one box per line)	**yes**	**no**	**Can't remember**
Relationships	☐	☐	☐
Sex#	☐	☐	☐
Drugs	☐	☐	☐
HIV/AIDS	☐	☐	☐
Smoking	☐	☐	☐
Alcohol	☐	☐	☐
Diet	☐	☐	☐
Personal hygiene	☐	☐	☐

9. How big an effect do you think the following statements have on people's health. Please tick the appropriate box for each statement.

(Please tick one box per line)	**yes**	**no**	**Don't know (?)**
Luck	☐	☐	☐
The body you're born with	☐	☐	☐
Social conditions (unemployment, lack of money)	☐	☐	☐
Physical environment (pollution, climate)	☐	☐	☐
Habits (smoking, drinking or what you eat)	☐	☐	☐
Looking after yourself (taking exercise, getting enough sleep)	☐	☐	☐
Health services (doctors, hospitals)	☐	☐	☐
Stress	☐	☐	☐

HIV/AIDS

10. Please indicate below what level of risk you think the following behaviours are to health. If you can't decide, use the don't know category.

(Please tick one box per line)	**High risk**	**Moderate risk**	**Low risk**	**No risk**	**Don't know(?)**
Sharing cutlery and cups with someone who has HIV (has the AIDS virus)	❒	❒	❒	❒	❒
Sharing a shaving razor with someone who has HIV (has the AIDS virus)	❒	❒	❒	❒	❒
Sharing a toothbrush with someone who has HIV (has the AIDS virus)	❒	❒	❒	❒	❒
Kissing someone who has HIV (has the AIDS virus)	❒	❒	❒	❒	❒
Having sex <u>without</u> a condom with someone who has HIV (has the AIDS virus)#	❒	❒	❒	❒	❒
Having sex <u>using</u> a condom with someone who has HIV (has the AIDS virus)#	❒	❒	❒	❒	❒
Sharing needles with someone who has HIV (has the AIDS virus)	❒	❒	❒	❒	❒

11. Please indicate below to show whether you think the following statements are "true" or "false". If you can't decide, use the "don't know category.

*(Please tick **one box per line**)*

If you have HIV (the AIDS virus) then:	**True**	**False**	**Don't know (?)**
a) you have got AIDS	❒	❒	❒
b) you will definitely be dead in 5 years	❒	❒	❒
c) you will definitely develop AIDS	❒	❒	❒
Is it possible to have HIV, but still look and feel perfectly healthy?	❒	❒	❒

12. Below are some statements. Please show how much you agree or disagree with each statement by ticking the relevant box.

(Please tick one box per line)	**Strongly agree**	**Agree**	**Don't know (?)**	**Disagree**	**Strongly disagree**
I am going to try and have only one sexual partner the rest of my life#	❐	❐	❐	❐	❐
If we were going to have sex, I would insist that my partner and I used a condom#	❐	❐	❐	❐	❐
Most people who have AIDS deserve it because of their lifestyle	❐	❐	❐	❐	❐
It is still possible to contain the spread of AIDS	❐	❐	❐	❐	❐
I worry about becoming HIV positive (catching the AIDS virus)	❐	❐	❐	❐	❐
HIV/AIDS education exaggerates the risks of HIV infection for most pupils in this school	❐	❐	❐	❐	❐
I think that HIV/AIDS education does not relate to me as I do <u>not</u> see myself at risk	❐	❐	❐	❐	❐
If drug use was made legal most of the problems of drug use would go away	❐	❐	❐	❐	❐
Drugs have no place in a healthy life-style	❐	❐	❐	❐	❐
Cannabis should be legalised	❐	❐	❐	❐	❐
People who take illegal drugs are not normal	❐	❐	❐	❐	❐
People who don't drink are missing out on a lot of fun	❐	❐	❐	❐	❐
Social events can be more enjoyable if you take drugs	❐	❐	❐	❐	❐

(Please tick one box per line)	**Strongly agree**	**Agree**	**Don't know (?)**	**Disagree**	**Strongly disagree**
Cannabis is less harmful that alcohol	❐	❐	❐	❐	❐
Smokers are more sophisticated than non-smokers	❐	❐	❐	❐	❐
Only evil people sell illegal drugs	❐	❐	❐	❐	❐
Drug education exaggerates the harm that drugs cause	❐	❐	❐	❐	❐
Young people who have <u>not</u> taken illegal drugs will be <u>even less</u> likely to take them after drug education	❐	❐	❐	❐	❐
People who take drugs are more likely to stop after drug education	❐	❐	❐	❐	❐
Sex education is the responsibility of parents not the school#	❐	❐	❐	❐	❐
I hardly ever think about my health	❐	❐	❐	❐	❐
The age limit for drinking in pubs should be lowered to sixteen	❐	❐	❐	❐	❐
There are things I can do to reduce my chances of getting cancer	❐	❐	❐	❐	❐
There are things I can do to reduce my chances of getting heart disease	❐	❐	❐	❐	❐
In general, I have very little control over my health	❐	❐	❐	❐	❐
In general, I have very little control over the direction of my life	❐	❐	❐	❐	❐
Breathing in other people's smoke can damage my health	❐	❐	❐	❐	❐
Teachers should treat secondary school pupils with more respect	❐	❐	❐	❐	❐

13. Please tick the box to show whether you think the following statements are "true" or false". If you can't decide, then please put a tick at "don't know".

(Please tick one box per line)

	True	False	Don't know (?)
A double whisky is the same strength as a pint of beer	❐	❐	❐
You can catch AIDS from injecting heroin, but not from injecting other drugs	❐	❐	❐
Drug users who inject are more likely to catch AIDS if they share their needles	❐	❐	❐
Once someone becomes addicted to heroin they can never come off it	❐	❐	❐
It is illegal to prepare magic mushrooms before use	❐	❐	❐
It is possible to become addicted to cigarettes	❐	❐	❐

14. Describe in your own words how you would reduce your risk of catching HIV (the AIDS virus)

15. Below are some statements. Please show how much you agree or disagree with each statement by placing a tick in the appropriate box.

(Please tick one box per line)	**Strongly agree**	**Agree**	**Don't know (?)**	**Disagree**	**Strongly disagree**
Most of the time I am satisfied with the way I look	❐	❐	❐	❐	❐
I am easy to like	❐	❐	❐	❐	❐
I am a failure	❐	❐	❐	❐	❐
I am proud of my body	❐	❐	❐	❐	❐
There are a lot of things about myself I would like to change	❐	❐	❐	❐	❐
I like myself	❐	❐	❐	❐	❐
I feel I have a number of good qualities	❐	❐	❐	❐	❐
I am happy with life in general	❐	❐	❐	❐	❐

SMOKING

16. Which of the following most closely describes you? Please tick one box.

I have never tried smoking	❐
I have only tried smoking once or twice	❐
I used to smoke, but gave it up	❐
I smoke occasionally (sometimes)	❐
I smoke regularly	❐
Don't know	❐

17. Do you see yourself as a light, average or heavy smoker?

(Please tick one box)

Light	☐
Average	☐
Heavy	☐
Don't know	☐
Don't smoke	☐

18. If you smoke, how many cigarettes (including any rollups) do you usually smoke in a week?

✍ _____ cigarettes per week

19. Where do you usually smoke? Please tick appropriate box.

(Please tick one box per line)	Yes	No
At home in front of/with parents	☐	☐
At home out of sight of parents	☐	☐
At friends' houses	☐	☐
In school (e.g. intervals/lunchtime)	☐	☐
At discos, parties or clubs	☐	☐
Café/coffee bar/ restaurant	☐	☐
In a pub/ wine bar	☐	☐
In the park/street or other open place	☐	☐
Don't smoke	☐	☐

20. If you smoke, why do you smoke? Please write a short answer below.

ALCOHOL

21. What about alcohol (wine with or without meals, beer, lager, cider or spirits like whisky or vodka)? Which of the following most closely describes you?

(Please tick one box per line)	Yes	No
I have never drunk alcohol	☐	☐
I only tried it once or twice	☐	☐
I used to drink, but gave it up	☐	☐
I only drink on special occasions (like Christmas or Hogmanay)	☐	☐
I drink occasionally (sometimes)	☐	☐
I drink regularly	☐	☐
Don't know	☐	☐

22. Do you see yourself as a light, average or heavy drinker?

(Please tick one box)

Light	☐
Average	☐
Heavy	☐
Don't know	☐
Don't drink	☐

23. About how often do you drink?

(Please tick one box per line)	Yes	No
Every day	☐	☐
A few days every week	☐	☐
At least once every week	☐	☐
At least once every month	☐	☐
At least once every few months	☐	☐
At least once every year	☐	☐
Less than once a year	☐	☐
Don't drink	☐	☐

24. When you go out for an evening how much alcohol do you normally drink? Please write your usual amount(s) in the boxes below. If you do not drink some of them, leave these boxes blank/empty.

Beer (heavy, light)	( ) pints
Lager	( ) pints
Shandy	( ) pints
Guinness or other stout	( ) pints
Cider	( ) pints
Wine	( ) glasses
Martini, sherry, port	( ) glasses
Whisky	( ) glasses
Gin	( ) glasses
Vodka	( ) glasses
Rum	( ) glasses
Other (please say what).....	
Varies (tick box if applies to you)	☐
Don't know (tick box if applies to you)	☐
Don't drink (tick box if applies to you)	☐

25. Where do you usually drink? Please tick the appropriate box.

	Yes	No
At home in front of/with parents	❐	❐
At home out of sight of parents	❐	❐
At friends' houses	❐	❐
In school (e.g. intervals/lunchtime)	❐	❐
At discos, parties or clubs	❐	❐
Café/coffee bar/restaurant	❐	❐
In a pub/wine bar	❐	❐
In the park/street or other open place	❐	❐
Don't drink	❐	❐

26. If you drink, why do you drink? Please write a short answer below

DRUGS

27. Have you ever tried drugs? Please tick one box.

Yes	No
❐	❐

28. If you wanted to, do you know where to get hold of:

	Yes	No
Soft drugs like cannabis	❐	❐
Hard drugs like heroin	❐	❐

29. How would you describe your drug use, if any? Please tick the appropriate box below.

	Regular	Occasional	Past only	Never taken	Don't know
Cannabis (Dope, Hash, Grass, Blow, Marijuana)	❐	❐	❐	❐	❐
LSD (acid)	❐	❐	❐	❐	❐
Glues, Solvents, Dry-cleaning fluids, fuels or gas	❐	❐	❐	❐	❐
Amphetamines (Speed, Sulph)	❐	❐	❐	❐	❐
Heroin (Smack)	❐	❐	❐	❐	❐
Ecstasy (Eccies, E, X)	❐	❐	❐	❐	❐
Astrolite (Trolls, Sky)	❐	❐	❐	❐	❐
Magic Mushrooms (Mushies)	❐	❐	❐	❐	❐
Temazepam (Eggs, jellies)	❐	❐	❐	❐	❐
Temgesic (Tems)	❐	❐	❐	❐	❐
Upjohns	❐	❐	❐	❐	❐
Vallium	❐	❐	❐	❐	❐
Codeine Linctus	❐	❐	❐	❐	❐
Diconal	❐	❐	❐	❐	❐
Morphine Sulphate	❐	❐	❐	❐	❐
DF118	❐	❐	❐	❐	❐
Other – please say what	❐	❐	❐	❐	❐

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30. Where do you usually take drugs? Please tick appropriate box.

	Yes	No
At home in front of/with parents	☐	☐
At home out of sight of parents	☐	☐
At friends' houses	☐	☐
In school (e.g. intervals/lunchtime)	☐	☐
At discos, parties or clubs	☐	☐
Café/coffee bar/restaurant	☐	☐
In a pub/wine bar	☐	☐
In the park/street or other open place	☐	☐
Never taken drugs	☐	☐

31. If you take drugs, why do you take drugs? Please write short answer below.

	(Please tick one box per line)	Yes	No	Can't remember
32.	Have you ever injected drugs?	☐	☐	☐
	Have you ever shared a needle?	☐	☐	☐

33. How healthy do you think it is to eat the following foods? Please tick the appropriate box.

	Very healthy	Healthy	Unhealthy	Very unhealthy
Fresh vegetables	☐	☐	☐	☐
Pastries/pies	☐	☐	☐	☐
Sweets/lollies	☐	☐	☐	☐
Brown bread	☐	☐	☐	☐
Red meat	☐	☐	☐	☐
Fish	☐	☐	☐	☐
butter	☐	☐	☐	☐
Chips	☐	☐	☐	☐
Fresh fruit	☐	☐	☐	☐
Jacket potatoes	☐	☐	☐	☐

34. How many cigarettes do you think someone would have to smoke per week or per day before their smoking starts damaging their health? Please tick one box only.

Any cigarettes at all are bad for your health	☐
1 – 6 cigarettes per week are bad for your health	☐
1 – 5 cigarettes per day are bad for your health	☐
6 – 10 cigarettes per day are bad for your health	☐
11 – 20 cigarettes per day are bad for your health	☐
21 – 30 cigarettes per day are bad for your health	☐
More than 30 per day are bad for your health	☐
Cigarettes do not damage health	☐
Don't know	☐

35. If someone asked you what would be a healthy level of alcohol for the average male and female adult to drink, what would you tell them? How many drinks per week would be a healthy level?

Tick one box only for males and one box only for females

Males		Females	
No alcohol at all	❐	No alcohol at all	❐
Occasional drinking (birthdays, Hogmanay etc)	❐	Occasional drinking (birthdays, Hogmanay etc)	❐
A glass/half pint once a week	❐	A glass/half pint once a week	❐
2-14 glasses/half pints per week	❐	2-14 glasses/half pints per week	❐
15-25 glasses/half pints per week	❐	15-25 glasses/half pints per week	❐
More than 25 glasses/half pints per week	❐	More than 25 glasses/half pints per week	❐
Don't know	❐	Don't know	❐

36. Below is a list of some people you know. For each one can you say whether he/she smokes, drinks alcohol, takes physical exercise (sport) regularly or takes soft drugs (e.g. cannabis) or hard drugs (e.g. heroin). Please tick appropriate box.

Father/Stepfather/male Guardian – if he lives at home with you

	Regularly	Occasionally	Never	Don't know (?)	Used to/ ex user
Smokes	❐	❐	❐	❐	❐
Drinks	❐	❐	❐	❐	❐
Exercise	❐	❐	❐	❐	❐
Soft drugs	❐	❐	❐	❐	❐
Hard drugs	❐	❐	❐	❐	❐

Mother/Stepmother/female Guardian – if she lives at home with you

	Regularly	Occasionally	Never	Don't know (?)	Used to/ ex user
Smokes	☐	☐	☐	☐	☐
Drinks	☐	☐	☐	☐	☐
Exercise	☐	☐	☐	☐	☐
Soft drugs	☐	☐	☐	☐	☐
Hard drugs	☐	☐	☐	☐	☐

How many older brothers do you have?

How many older brothers smoke?	_____
How many older brothers drink?	_____
How many older brothers exercise?	_____
How many older brothers take soft drugs?	_____
How many older brothers take hard drugs?	_____

How many older sisters do you have?

How many older sisters smoke?	_____
How many older sisters drink?	_____
How many older sisters exercise?	_____
How many older sisters take soft drugs?	_____
How many older sisters take hard drugs?	_____

How many younger brothers do you have?

How many younger brothers smoke?	_____
How many younger brothers drink?	_____
How many younger brothers exercise?	_____
How many younger brothers take soft drugs?	_____
How many younger brothers take hard drugs?	_____

How many younger sisters do you have?

How many younger sisters smoke?	_____
How many younger sisters drink?	_____
How many younger sisters exercise?	_____
How many younger sisters take soft drugs?	_____
How many younger sisters take hard drugs?	_____

Boy/girl friend if you have one

	Regularly	Occasionally	Never	Don't know (?)	Used to/ ex user
Smokes	☐	☐	☐	☐	☐
Drinks	☐	☐	☐	☐	☐
Exercise	☐	☐	☐	☐	☐
Soft drugs	☐	☐	☐	☐	☐
Hard drugs	☐	☐	☐	☐	☐

37. Thinking of your friends how many of them smoke, drink, do sport, take soft or hard drugs? Please tick appropriate box.

	None	One	A few	Half	Most	All, but one	All	Don't know (?)
Smokes	☐	☐	☐	☐	☐	☐	☐	☐
Drinks	☐	☐	☐	☐	☐	☐	☐	☐
Exercise	☐	☐	☐	☐	☐	☐	☐	☐
Soft drugs	☐	☐	☐	☐	☐	☐	☐	☐
Hard drugs	☐	☐	☐	☐	☐	☐	☐	☐

School

38. In you present school, have you had any lessons OR discussions with teachers covering the following topics? Please tick appropriate box.

	Yes	No	Can't remember
Relationships	☐	☐	☐
Sex#	☐	☐	☐
Drugs	☐	☐	☐
HIV/AIDS	☐	☐	☐
Smoking	☐	☐	☐
Alcohol	☐	☐	☐
Diet	☐	☐	☐
Personal hygiene	☐	☐	☐

39. How helpful were any lessons OR discussions with teachers you have had covering the following topics? Please tick appropriate box.

	Very helpful	Helpful	Don't know (?)	Unhelpful	Very Unhelpful
Relationships	☐	☐	☐	☐	☐
Sex#	☐	☐	☐	☐	☐
Drugs	☐	☐	☐	☐	☐
HIV/AIDS	☐	☐	☐	☐	☐
Smoking	☐	☐	☐	☐	☐
Alcohol	☐	☐	☐	☐	☐
Diet	☐	☐	☐	☐	☐
Personal hygiene	☐	☐	☐	☐	☐

40. Who (or which) would you say gave you the <u>most</u> information on the following topics. Please tick one box for each topic.

Topic	Parents	Teachers	Friends	Brother or sisters	Dr.	Mag	TV	Posters/ leaflets	Other
Relation-ships	☐	☐	☐	☐	☐	☐	☐	☐	☐
Sex#	☐	☐	☐	☐	☐	☐	☐	☐	☐
Drugs	☐	☐	☐	☐	☐	☐	☐	☐	☐
HIV/AIDS	☐	☐	☐	☐	☐	☐	☐	☐	☐
Smoking	☐	☐	☐	☐	☐	☐	☐	☐	☐
Alcohol	☐	☐	☐	☐	☐	☐	☐	☐	☐
Diet	☐	☐	☐	☐	☐	☐	☐	☐	☐
Personal hygiene	☐	☐	☐	☐	☐	☐	☐	☐	☐

41. If you had any of the problems listed below is there at least one teacher you could talk to about it? Please tick appropriate box.

Is there at least one teacher you could talk to about...

	Yes	No	Don't know
School problems	❐	❐	❐
Money problems	❐	❐	❐
Health problems	❐	❐	❐
Career problems	❐	❐	❐
Problems with friends	❐	❐	❐
Family problems	❐	❐	❐
Drug problems	❐	❐	❐
Sexual problems#	❐	❐	❐
Boy/girlfriend problems	❐	❐	❐

SPORT

42. Are you currently doing any sport or physical exercise that makes you out of breath and sweaty and that you do for more than 20 minutes at a time?

Yes	No
❐	❐

43. If you have answered "yes" above, how many days of the week do you do sport (or physical exercise) that makes you out of breath and sweaty for more than 20 minutes?

✍ _____ days

If you answered "yes" above, what sports or physical exercise do you do?

✍ _____

44. How would you rate your level of fitness?

Very good	❐
Good	❐
Average	❐
Not very good	❐

THE FOODS YOU EAT

45. Here is a list of foods that you might eat, please tick the appropriate boxes to show how often you eat these foods.

	More than once a day	Once a day	Most days (3-6)	Once or twice a week	Less than once a week	Never
Fresh fruit	❐	❐	❐	❐	❐	❐
Salad or raw vegetables	❐	❐	❐	❐	❐	❐
Chips	❐	❐	❐	❐	❐	❐
Potatoes (not chips)	❐	❐	❐	❐	❐	❐
Cooked vegetables	❐	❐	❐	❐	❐	❐
Beans (all kinds incl. baked beans, lentils.)	❐	❐	❐	❐	❐	❐
Potato crisps & similar snacks	❐	❐	❐	❐	❐	❐
Sweets, chocolates	❐	❐	❐	❐	❐	❐
Pasta (spaghetti, noodles) or rice	❐	❐	❐	❐	❐	❐
Biscuits	❐	❐	❐	❐	❐	❐
Desserts or puddings, fruit pies etc	❐	❐	❐	❐	❐	❐
Yoghurt	❐	❐	❐	❐	❐	❐
Soft drinks like coke & squash	❐	❐	❐	❐	❐	❐
Pure fruit juice	❐	❐	❐	❐	❐	❐
Milk	❐	❐	❐	❐	❐	❐
Cheese	❐	❐	❐	❐	❐	❐
Eggs	❐	❐	❐	❐	❐	❐
Cream	❐	❐	❐	❐	❐	❐
Fish	❐	❐	❐	❐	❐	❐
Poultry (chicken)	❐	❐	❐	❐	❐	❐
Sausages/tinned meat/pate	❐	❐	❐	❐	❐	❐
Meat pies/pasties/bridies	❐	❐	❐	❐	❐	❐
Beef/lamb/pork/ham/bacon	❐	❐	❐	❐	❐	❐

46. Have you learned anything in school about healthy eating?
Please tick one box

Yes	❐
No	❐
Don't know or can't remember	❐

THANK YOU FOR FILLING IN THIS QUESTIONNAIRE

Appendix Two

This section presents the facilitators and barriers in three sections: first, preparatory behaviours; second, communication; third, action.

Facilitators and barriers for preparatory behaviours

School 1 (Jude) Facilitators, obstructions & additional information to preparatory behaviours – where information was provided

Preparatory behaviours	**Facilitator(s)**	**Obstruction(s)**
Designate staff with specific responsibility		
Established a health education committee and nominated a co-ordinator	Volunteer staff	Lack of time to meet
Information gathered		
Audit every departments contribution to Health Education	HEDO and co-operation of staff	Lack of time
Trained staff to enable them to activate the plans		
In-service training provided for staff on HIV / AIDS	HEDO ran training Time made available from PAT	
Given further staff training to teaching staff on health education and health promotion		Lack of time confounded by change of personnel: both the original HEDO and PT of Religious Education resigned. The change of personnel made the process longer.

School 2 Facilitators, obstructions & additional information to preparatory behaviours – where information was provided

Preparatory behaviours	Facilitator(s)	Obstruction(s)
Information gathered		
Audit every departments contribution to Health Education	HEDO visited all departments to investigate courses.	
Set priorities		
Decided on Health Education & Promotion priorities and targets	Co-operation of Committee members and HEDO	Time factor HE Committee had perceived their remit to organise a health day
Planned how to implement priorities		
Made a curricular plan for health education	HEDO, Headteacher and all staff	Health being in competition with other curricular demands Lack of time (in curriculum and for meetings)
Trained staff to enable them to activate the plans		
In-service training provided for staff on HIV / AIDS	Co-operation of Headteacher and HEDO.	Getting all the staff together.
Supported the Health Committee to implement the teaching of the resource pack `Skills for Adolescence' [Lions Club International, 1986 #88]	Full co-operation from HEDO, Headteacher and all staff.	Lack of time. In `competition' with other curriculum demands. Some funding was available direct to the school for these goals.
Given further staff training to teaching staff on health education and health promotion	HEDO	Time-tabling restrictions and lack of time

School 3 Facilitators, obstructions & additional information to preparatory behaviours – where information was provided

Preparatory behaviours	Facilitator(s)	Obstruction(s)
Designate staff with specific responsibility		
Established a health education committee and nominated a co-ordinator	2 day in-service helped group cohesion.	New SMT. Health not clearly a priority of the school. Remit of the Health Committee not clear. Individual roles of the Health Committee not clear.
Information gathered		
Audit every departments contribution to Health Education	Effort of HEDO	
Set priorities		
Decided on Health Education & Promotion priorities and targets		Time to meet was not available
Planned how to implement priorities		
Made a curricular plan for health education 1. Plan on basis of curricular review day	HEDO	
Trained staff to enable them to activate the plans		
In-service training provided for staff on HIV / AIDS	Effort of HEDO	
Supported the Health Committee to implement the teaching of the resource pack `Skills for Adolescence' [Lions Club International, 1986 #88]		Not a priority of the school
Given further staff training to teaching staff on health education and health promotion	Co-operation of staff	Lack of time and health is not clearly a priority of the school

School 4 Facilitators, obstructions & additional information to preparatory behaviours – where information was provided

Preparatory behaviours	Facilitator(s)	Obstruction(s)
Prioritised health		
Health included as a priority in the school's development plans	Commitment from the Development Plan Committee. Willingness and co-operation of the PE Department.	Getting the backing and support of all the teaching staff, which was ultimately achieved by disseminating health information and awareness raising. Generally getting the time and organisation sorted out were obstructions.
Designate staff with specific responsibility		
Appointed a AHT with a specific remit for Health	Willingness of AHT. HEDO's presentation to SMT. Headteacher informed and co-operative	SMT remits and reshuffle of responsibilities. Change of personnel. Concern over the amount of work that the school is committing itself to.
Established a health education committee and nominated a co-ordinator	PAT / in-service day	Reduction in time allocated for of PAT.
Allocated time		
Made time for regular meetings of the health education committee	Being given time for meetings.	Change of personnel.
Information gathered		
Audit every departments contribution to Health Education	Willingness from PTs	Time-tabling restrictions, further complication by teachers sometimes having to cover another teacher's class unexpectedly. Time was a barrier too.
Set priorities		
Decided on Health Education & Promotion priorities and targets	Co-ordination by HAT and discussed at SMT level.	Time
Trained staff to enable them to activate the plans		
In-service training provided for staff on HIV / AIDS	Input by HEDO.	Time.

School 5 (Seaview) Facilitators, obstructions & additional information to preparatory behaviours – where information was provided

Preparatory behaviours	Facilitator(s)	Obstruction(s)
Designate staff with specific responsibility		
Established a health education committee and nominated a co-ordinator	Found a 'volunteer' member of staff Co-operation between co-ordinator and departments	
Information gathered		
Audit every departments contribution to Health Education	Co-operation with school departments and willingness of HEDO.	
Set priorities		
Decided on Health Education & Promotion priorities and targets	Co-operation of PTs	
Planned how to implement priorities		
Made a curricular plan for health education 1. S1 Health Education 2. S2 Health Education	Co-operation of (particularly Guidance) staff	Lack of time, change of remit of staff involved and change of staff involved Continuing change and arrival of new material which necessitated updating a recently updated course
Trained staff to enable them to activate the plans		
Supported the Health Committee to implement the teaching of the resource pack `Skills for Adolescence' [Lions Club International, 1986 #88]		Lack of in-service resources within the Education Division.

School 6 (Bruce High) Facilitators, obstructions & additional information to preparatory behaviours – where information was provided

Preparatory behaviours	Facilitator(s)	Obstruction(s)
Planned how to implement priorities		
Made a curricular plan for health education 1. S3 Social Education 2. S4 Social Education	HEDO working with Health Education co-ordinator, guidance and SMT representatives and co-operation of staff	Large class sizes felt to be a disadvantage to the teaching methods involved in health education
Given further staff training to teaching staff on health education and health promotion		Lack of time

School 7 Facilitators, obstructions & additional information to preparatory behaviours – no further information provided

School 8 Facilitators, obstructions & additional information to preparatory behaviours – where information was provided

Preparatory behaviours	Facilitator(s)	Obstruction(s)
Information gathered		
Health Education Audited in conjunction with Associated Primary Schools. This was related to Scottish Education Department's 5-14 initiative	Teacher was given a remit for primary school liaison.	
Planned how to implement priorities		
Made a curricular plan for health education 1. S1 Social Education 2. S2 Social Education 3. S3 Social Education 4. S4 Social Education	Allocation of time and co-operation of staff	Teachers view it as `yet another audit'
Trained staff to enable them to activate the plans		
Given further staff training to teaching staff on health education and health promotion	Co-operation of outside agencies	

Facilitators and barriers to communication

School 1 (Jude) Facilitators, obstructions & additional information to communication – no further information provided

School 2 Facilitators, obstructions & additional information to communication – where information was provided

Communication	Facilitator(s)	Obstruction(s)
Dissemination of information		
Disseminated to all staff the results of the school health audit	SMT	
That Involved outside agencies		
Liaised with outside agencies in the local community 1. Liaison with community health service		Lack of time Limitations of mutually convenient times
That involved parents		
Liaised with parents with regard to health issues		Time factor
Total communication score		

School 3 Facilitators, obstructions & additional information to communication – where information was provided

Communication	Facilitator(s)	Obstruction(s)
That Involved outside agencies		
Liaised with outside agencies in the local community	Co-operation of outside agencies	Health is not clearly a priority of the school
That involved parents		
Liaised with parents with regard to health issues	Parents were helpful and supportive	
Total communication score		

School 4 Facilitators, obstructions & additional information to communication – where information was provided

Communication	Facilitator(s)	Obstruction(s)
That Involved outside agencies		
Liaised with outside agencies in the local community 1. Local Health Promotion Department and school setting up 'Health Group' 2. Y (Youth) Touring Company presented play on HIV / AIDS to pupils	Co-operation of outside agencies, allocation of time and HEDO	
Total communication score		

School 5 (Seaview) Facilitators, obstructions & additional information to communication – where information was provided

Communication	Facilitator(s)	Obstruction(s)
That Involved outside agencies		
Liaised with outside agencies in the local community 1. Improved links with local Health Board. 2. Y (Youth) Touring Company presented play on HIV / AIDS to pupils	Co-operation of staff and co-operation of outside agencies	
That involved parents		
Liaised with parents with regard to health issues	HEDO worked with parents	
Total communication score		

School 6 (Bruce) Facilitators, obstructions & additional information to communication - no further information provided

School 7 Facilitators, obstructions & additional information to communication – no further information provided

School 8 Facilitators, obstructions & additional information to communication – where information was provided

Communication	Facilitator(s)	Obstruction(s)
Dissemination of information		
Disseminated to all staff the results of the school health audit	Health Committee	

Facilitators and barriers to action

School 1 (Jude) Facilitators, obstructions & additional information to action – where information was provided

Action	Facilitator(s)	Obstruction(s)
That involved parents		
Ran a parents' workshop on HIV / AIDS	HEDO attended the meeting	Lack of focus

School 2 Facilitators, obstructions & additional information to action – where information was provided

Action	Facilitator(s)	Obstruction(s)
Taught health education		
Implemented the teaching of health education for pupils 1. Skills for Adolescents packaged taught	Pupils' enthusiasm, co-operation of staff and provision of teaching materials	Lack of time and health being in competition with other curricular demands
Taught HIV / AIDS education to pupils using the ESCAPE-AIDS package [Strathclyde Regional Council, Undated #87]	Support of staff	

School 3 Facilitators, obstructions & additional information to action – where information was provided

Action	Facilitator(s)	Obstruction(s)
Improved environment		
Improved the physical school environment 1. Notice boards put up and used to raise health awareness. 2. Large calendar put up on wall with health events marked on it.	PTA help and support	Lack of focus
Undertaken health promotion		
Undertaken health promotion initiatives for teaching staff 1. Staff 'social' sport events started	Co-operation of staff	Lack of time and health is not clearly a priority of the school

School 4 Facilitators, obstructions & additional information to action – where information was provided No further information given

Action	Facilitator(s)	Obstruction(s)
Taught health education		
Taught HIV / AIDS education to pupils using the ESCAPE-AIDS package [Strathclyde Regional Council, Undated #87]	HIV / AIDS leaflets and information given out to all Departmental Health Boxes. HIV / AIDS workshop for pupils by the `Y' Touring Company.	
Involving outside agencies		
Collaborated with outside agencies in the local community 1. Started 'Health Group' involving outside agencies 2. 'Y' Touring company	HIV / AIDS workshop for pupils by the `Y' Touring Company. Co-operation of outside agencies, allocation of time and HEDO	

School 5 (Seaview) Facilitators, obstructions & additional information to action – where information was provided

Action	Facilitator(s)	Obstruction(s)
Taught health education		
Implemented the teaching of health education for pupils		Continuing change and arrival of new material which necessitated updating a recently updated course
Taught HIV / AIDS education to pupils using the ESCAPE-AIDS package [Strathclyde Regional Council, Undated #87]	Availability of HEDO	Lack of time
Improved environment		
Improved the physical school environment		Lack of time and change of remit of staff involved
That involved parents		
Ran a parents' workshop on HIV / AIDS	HEDO who delivered the workshop	
Involving outside agencies		
Collaborated with outside agencies in the local community 1. Y (Youth) Touring Company presented play on HIV / AIDS to pupils		

School 6 (Bruce) Facilitators, obstructions & additional information to action – where information was provided

Action	Facilitator(s)	Obstruction(s)
Taught health education		
Implemented the teaching of health education for pupils 1. S3/S4 Social Education	HEDO and co-operation of staff	Large class sizes felt to be a disadvantage to the teaching methods involved in health education
Improved environment		
Improved the physical school environment 1. Better sign posting in school	Availability of funding	Lack of time
Undertaken health promotion		
Undertaken health promotion initiatives for pupils 1. Health Fair 2. No Smoking Day 3. 'Physical Conditioning' for S1/S2 pupils	Health Committee	
Undertaken health promotion initiatives for staff 1. Rest room for staff 2. More staff fitness opportunities 3. Staff relaxation course		

School 7 Facilitators, obstructions & additional information to action – where information was provided

Action	Facilitator(s)	Obstruction(s)
Taught health education		
Implemented the teaching of health education for pupils 1. Skills for Adolescence	Helpfulness of in-service training and having a vertical guidance system in place	Lack of teacher confidence and lack of perceived support for these teachers
Improved environment		
Improved the physical school environment 1. Placed more plants throughout the school	Pupil and staff representation	Need to continually raise awareness of the issues and lack of a school assembly.
Undertaken health promotion		
Undertaken health promotion initiatives for pupils 1. Healthy eating week 2. Health Fair 3. Generally promoting healthier food	Canteen more flexible and co-operative, `Y Touring Theatre Company and pupils' enthusiasm	Lack of a school assembly, lack of time, the caterers are motivated to make a financial profit which can lead to them preparing food the pupils like to eat rather than food that would be healthy for the pupils and extra time and work involved in having to co-ordinate with outside agencies
Undertaken health promotion initiatives for teaching staff 1. Staff social committee formed 2. Staff well-being promoted (namely relaxation)	Volunteer staff, allocation of time, co-operation of outside agencies, involvement of both teaching and non teaching staff and canteen more flexible and co-operative	Lack of time and the caterers are motivated to make a financial profit which can lead to them preparing food the pupils like to eat rather than food that would be healthy for the pupils

School 8 Facilitators, obstructions & additional information to action – where information was provided

Action	Facilitator(s)	Obstruction(s)
Taught health education		
Implemented the teaching of health education for pupils 1. Social Education course	Co-operation of staff	
Undertaken health promotion		
Undertaken health promotion initiatives for pupils 1. S2 'Healthy Menu' competition 2. Health Fair 3. Eating Policy	Allocation of time and the co-operation of outside agencies.	
Undertaken health promotion initiatives for teaching staff 1. More active social committee 2. Healthy Breakfast for staff (on Health Fair day) 3. Staff fitness opportunities widened 4. Health related display in staff room 5. Staff health resource area widened in library 6. Staff welfare targets set (relaxation will be first to be targeted)	Co-operation of staff, Health Committee, availability of funding, allocation of time and the co-operation of outside agencies.	
Taught HIV / AIDS education to pupils using the ESCAPE-AIDS package [Strathclyde Regional Council, Undated #87]		Lack of time
Improved environment		
Improved the physical school environment 1. Better sign posting throughout school that is in different languages	Help from teacher with remit for primary school liaison.	
That involved parents		
Ran a parents' workshop on HIV / AIDS	Co-operation of staff and HEDO	
Involving outside agencies		
Collaborated with outside agencies in the local community		